INVOLVING NON-ACADEMIC USERS IN SOCIAL SCIENCE RESEARCH: COLLABORATION BETWEEN MANAGEMENT ACADEMICS AND PRACTITIONERS

Thesis

Submitted by

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ABSTRACT

The motif of a *'closer relationship'* between academics and practitioners in doing research and the impetus for *'user engagement'* in different stages of social science research has become a subject of considerable interest to policy-makers over recent years and has featured in policy statements of government. Following the UK Government's 1993 White Paper, *Realising our Potential: A Strategy for Science, Engineering and Technology,* the Economic and Social Research Council (ESRC) emphasised meeting the needs of the non-academic users of social science research and introduced a policy which enhanced funding opportunities to academics proposing to engage with an explicit agenda of collaboration. But is this initiative sufficient to realise the benefit of its proposed outcomes? Are policy-makers aware of the possibilities and limitations of *research collaboration* between academics and practitioners in practice?

The aim of this qualitative study is to explore the perceptions of academics and practitioners of the process of research collaboration and to provide a better understanding of this process. Projects for study were identified from those which were on ESRCís list of funded research projects in the management discipline and which appeared to be responding to the ESRC's encouragement of collaboration between academics and non-academic users of their research. Findings from this study are presented through three cases of research collaboration between academics and practitioners who were interviewed in their workplaces. The findings are combined with the results of supplementary interviews with academics in other management departments in British universities and policy-makers in the ESRC. Bringing the results together demonstrates how *research collaboration* works out in practice, and what the academics' and practitioners' views of research collaboration are. The findings also reveal some limitations of collaboration on both sides which need to be considered by those promoting or entering into research collaboration. The main implication for policy is that the ESRC should not overestimate the ability of academics to change their approach to research in response to the ESRC's new focus on collaboration with non-academic users of research. In addition, this study develops a theoretical discussion of research collaboration based on existing literature of collaboration in other contexts (especially science and technology Research and Development and inter-organisational collaboration) and suggests directions for future research.

DECLARATION

No part of this thesis has been submitted for any other degree or professional qualification. In accordance with Regulations 3.4.7 of the University of Edinburgh, I declare that this thesis has been composed by myself, and that I performed the research described herein.

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DEDICATION

To my dear parents,

Who taught me with their love and thoughtfulness, how to strive to learn more and to survive through difficulties.

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LIST OF ABBREVIATIONS

ABRC	Advisory Board of Research Councils
ACARD	Advisory Council for Applied Research and Development
ACSP	Advisory Council on Scientific Policy
CASE	Collaborative Awards in Science and Engineering
CPA	Collaborator Practitioner in case 'A'
CPB	Collaborator Practitioner in case 'B'
DES	Department of Education and Science
DSIR	Department of Scientific and Industrial Research
DTI	Department of Trade and Industry
EPSRC	Engineering and Physical Sciences Research Council
ESRC	Economic and Social Research Council
JCPC	Joint Collaborator Practitioner in case 'C'
MCPC	Main Collaborator Practitioner in case 'C'
OECD	Organisation for Economic Co-operation and Development
OST	Office of Science and Technology
PICT	Programme on Information & Communication Technologies
PRA	Principal Researcher of case 'A'
PRB	Principal Researcher of case 'B'
PRC	Principal Researcher of case 'C'
PSR	Public Sector Research
R&D	Research and Development
TCS	Teaching Company Scheme
UK	United Kingdom

CHAPTER 1
INTRODUCTION

Why is it so difficult for people from different fields to work together for a common purpose? The concept of collaboration is becoming increasingly widespread in different contexts of *working together*. This diversity covers a broad area of concern and different levels of involvement including collaboration between individuals, groups, and institutions at national and international levels. Despite this wide range of diversity, there seems to be a consensus on three major points which affect the study of collaboration in every situation. First, collaboration holds different meanings in different contexts. A second major consideration is the complexity of this phenomenon. This might be caused by differences in objectives and motivations for entering into collaboration, attitudes and values of participants, and diverse expectations of the output of collaboration. These factors contribute to the complexity of successful collaboration in practice. Third, there is a great emphasis on the necessity for further studies on the process of collaboration. Research collaboration between academics and practitioners especially in the social sciences, seems to be one of the most complicated examples of applying this concept in practice. This study hopes, by its findings, to shed light on some of these distinctive aspects of collaboration and to suggest a more systematic framework for future studies of this subject.

In recent years, research collaboration between university and industry has been of increasing interest to the government's research policy for improving the productivity of their national research output, and to the researchers in academia as well. Consequently, there has been a large growth in the number of collaborative research projects involving academic and industrial workers, though mostly in science and technology R&D (Dickson, 1996; Faulkner and Senker, 1995; Hakanson, 1993; Braun, 1993; Webster and Etzkowitz, 1991; Phillips, 1991). The role of government policies and their agencies in encouraging and directing collaboration between university and industry has been the focus of several papers (Rothwell, 1994; Geisler, 1993; Quintas and Guy, 1995).

In May of 1993, the White Paper on Science, Engineering and Technology: *Realising Our Potential,* placed a strong emphasis on university-industry links through addressing the importance of encouraging industrial and academic partnerships. Although the main focus of this document was on natural sciences, engineering and technology transfer issues, its general emphasis on the research council's mission also affected the Corporate Plan of the Economic and Social Research Council (ESRC) towards "enhancing the United Kingdom's economic competitiveness and the effectiveness of public services and public policy, and the quality of life". One of the long term corporate aims of the ESRC's Corporate Plan, 1994-99 has been identified as: "To increase the involvement of business, government and other users in the design, management and evaluation of all of our activities, and thereby increase the benefits of research to the UK economy and society".

The scope of this study

Diversity of collaboration may take a number of distinctive forms. These variances can be considered in terms of different characteristics. The subject of collaboration can generate different varieties of collaborative working. Collaboration for developing a technology in the industrial sector is probably different from collaboration for improving a service in the government sector. The collaborators who may come from different sectors, for instance, public or private sector organisations, academics in universities and practitioners in industry or other organisations, or several firms in same area of activity are included within this diversity. Academics' collaboration across national or international networks is another type of collaboration. As we notice, regarding the diversity of collaborators and the nature of their organisations' activities, not only the purpose of collaborative setting may differ, but also the design and structure of collaboration can change from one context to another. Research collaboration between management academics and practitioners is one of the contexts which holds distinctive characteristics in terms of all the factors mentioned- subject of collaboration, collaborators, and purpose of 'working together'. In addition, the multi-disciplinary nature of management research among other social sciences research can show another distinctive characteristic of research collaboration in this subject.

Despite the growth of initiatives for encouraging collaboration between academics and practitioners through research projects awarded by the ESRC and other research councils in Britain, there is little empirical information available about whether the model of collaboration from the natural sciences might be applicable to

management research. Better understanding of the nature and structure of research collaboration in management will help both academics and practitioners to get benefit from 'working together'. Moreover, it would provide a better insight for decision-makers in government and its research organisations about the different ways of creating suitable conditions to encourage and develop fruitful cases of research collaboration. In other words, this insight can also be helpful to identify the potential collaborators and to provide the practical mechanisms for recognising the academics' and practitioners' constraints and limitations for 'working together' in order to reduce the barriers of research collaboration. This may increase the probability of achieving mutual benefit for both collaborators and policy makers.

So what are the questions which are unanswered and important to ask? What are the inputs to this framework of *working together*? What happens through the process of research collaboration between management academics and non-academic users of their research? What are the output and outcome of this setting? A central aim of this study is an attempt for developing a better understanding of the process of research collaboration between academics and practitioners in management research. This study began with a main question: '*What are perceived to be effective processes in research collaboration between management academics in university and practitioners in their organisations*?' and five specific research questions:

1. What is the definition of research collaboration in management research from the academics' and practitioners' point of view?

2. How do academics and practitioners enter the research collaboration?

3. Why do they enter into research collaboration?

    3.1. What are their motives for this collaboration?

    3.2. What are their expectations of this collaboration?

4. What are the factors contributing to success of academics and practitioners collaboration in management research?

5. What are the factors which inhibit the effectiveness of academics-practitioners research collaboration in management?

The design of this study involved undertaking a qualitative analysis through case studies. The choice of qualitative approach and case study as the research strategy

for this study has been based on their applicability and appropriateness to the research questions. The analysis of the data gathered through semi-structured interviews with academics and practitioners not only tried to seek the answers to research questions, but also revealed the complexity of the research collaboration relationship between academics and practitioners in management research. These findings led to a discussion of a few additional questions for future studies as follows:

- How does the process of research collaboration make a foundation for mutual learning?
- How can communication act as a key element for success of research collaboration?
- What is the distinctive nature of practising research collaboration between management academics and practitioners?
- What can we learn from theories which have been developed in other contexts of collaboration?

The above questions were initiated from the reflection of related theories on analysed data through this study, and vice versa.

Existing literature and the gap

Although there is a substantial and growing literature on inter-organisational collaboration in different contexts including strategic alliances, joint ventures, organisational partnerships, co-operative inter-firm relationships and technological collaboration (Butler and Gill, 1994; Feyerherm, 1994; Faulkner, 1994; Dodgson, 1993; Gray, 1989), there has been very little work on the study of research collaboration between academics and practitioners in the social sciences and in particular in management research. In addition, since as Wood and Gray (1991) point out: "only some of the theories can address the collaborative process; the others leap from preconditions to outcomes, leaving us with a 'black box' to cover the area in between" (Ibid. pg. 143), many unanswered questions remain about this process.

Several authors have tried to examine the various aspects of collaboration in different contexts. For example, the study of differences in attitudes and perspectives of collaborators in university and industry, and the need for effective

communication (McBrierty, 1993; Burrington, 1993); the characteristics of successful collaboration in inter-organisational relationships (Mattessich and Monsey, 1994; Gray, 1989, 1995; Brockhoff and Teichert, 1995); concept analysis of collaboration; an attempt at creating a definition of collaboration and research collaboration (Katz and Martin, 1997; Huxham, 1996; Gray, 1989; Henneman, Lee and Cohen, 1995), and some of the guidebooks or 'do it yourself packs' (Winer and Ray, 1994). But none of these studies' scope includes the study of research collaboration between academics and practitioners in management research. One of the objectives of this research is to explore the distinctive or similar characteristics of this context of collaboration.

The structure of thesis

The thesis is organised in three parts and nine chapters. The first part consists of chapters 1 to 3, which include the study. The second part of the thesis, chapters 4 to 8, is concerned with the data analysis, and the third part comprises chapter 9, which deals with concluding discussion. An attempt has been made to reflect the development of the study through the whole body of the research report. Therefore, it begins with an initial effort at mapping the more relevant literature. Chapter 2 not only tries to set out a background of the research policy in Britain as the policy context of this study, but also acts as an opening discussion about some predominant themes of collaboration in existing literature[1] by which an appropriate base for the outline of interview questions is framed. The emergence of a new pattern of university research and changing role of research councils in general, and a background insight into the mission of the Economic and Social Research Council in the UK is provided in particular through this chapter. Chapter 3 reviews the procedure involved to seek the answer to the research questions and tries to provide a step by step explanation of different stages of data collection and data analysis. The reasons for choosing a qualitative approach and case study strategy are discussed in this chapter. The difficulty of access to the intended cases of research collaboration is also described, which needs to be borne in mind when the research design is considered. The phenomenon of research collaboration is examined in chapter 4 as a pre-discussion to the presentation of three cases of collaboration between management academics and the non-academic users of their research. This

[1] Because of the lack of previous studies on the subject of this study, the main references for this part of discussion are adopted from existing literature on university-industry R&D collaboration within science and technology contexts, and inter-organisational collaboration literature.

chapter begins by a brief discussion on policy context of research collaboration and the situation of management research in British universities, and continues within two different sections. The first section - data and discussion - is organised to cover the analysis of findings from 20 supplementary interviews in this study, and the second section - findings and literature - attempts to place the findings of this part of study in the context of the wider literature in order to provide a more comprehensive picture on the subject of research.

Three cases of research collaboration are analysed through chapters five to seven. Each chapter tries to explore different aspects of this relationship by drawing on the data in semi-structured interviews with both involved academics and practitioners in these projects. The specific research questions are the main guideline which are pursued through the case studies. Chapter 8 is designed to provide a comparison between case studies in terms of the main themes raised by analysing the data on practice of collaboration between academics and practitioners. A framework for discussion is suggested within which the cross-case analysis develops a concept of the presence of the prime perception of collaboration among collaborators, and the development of the three different phases in the experience of research collaboration between academics and practitioners.

Chapter 9 begins with methodological reflections and the lessons which can be drawn from this research. The two following sections review the whole of the findings of the research and picks up the most revealing themes to provide an analytical discussion through developing outcomes of relevant literature. This chapter has been organised in two sections of: specific research questions, and the questions beyond the research questions. According to the focus of discussion in each section, some of the relevant issues for future research on the subject of research collaboration between academics and practitioners are addressed. This thesis comes to a concluding note by emphasising the policy context of this research, and its policy implications for the ESRC.

Although the limited number of cases studied reflects the difficulty of identifying projects which meet the criteria[2], the findings of both case studies and supplementary interviews through this research show a potential ability to integrate

[2] The limitations are discussed in detail in chapter 3.

with existing and emerging literature which have been developed individually in other relevant studies.

According to all the discussions on findings of this study, it may be concluded that in general, research collaboration between academics and practitioners in management research is difficult to conduct on a basis of shared assumptions. In other words, although there are many lessons which can be learned from successful collaborations for encouraging this relationship, there are real limitations in both sides which make it a difficult job. Findings of this study suggest a distinctive nature of research collaboration between academics and practitioners and its limitations on both sides. The subject of management research compared to the fields of science and technology research and development illustrate another element of distinction through this type of *working together*.

However, regarding the aim of this study for providing a better understanding of the process of research collaboration, the findings of this research can be as important from academics' point of view as the managers', as well as policy makers', who are interested in investment of their resources (financial and non-financial) in research collaboration.

CHAPTER 2
MAPPING AND REVIEW OF THE LITERATURE

The chosen strategy for using the literature in this study was the outcome of two main factors. First, the lack of literature in similar studies on the research topic, and second the lack of a unifying theoretical concept for research collaboration between academics and practitioners.

The first lesson of my effort for tracing the work which has been done on this subject was: we do not know much and we need more insight into the process of research collaboration between academics in university and practitioners in industry, particularly in the management research.

The common frameworks for the literature review in a scholarly study suggest a focus on different principles. Such a review mainly presents the relevant findings of similar studies, shows the importance of a study and its place among the broader literature on the subject, and provides a background to compare the findings of the research with the results of other relevant studies. But, this chapter (which I prefer to name 'mapping and review of the literature' rather than the more conventional term literature review) attempts to suggest a framework from the different bodies of more relevant literature. The outcomes of this mapping provided a background for analysing the gathered information in recent research. The more comprehensive discussion is developed through the reflection of the findings of this study on the lessons that can be learned from relevant literature in the last chapter.

The literature map of this study was based on several assumptions as follows:

- Social sciences research in universities is dependent on the Economic and Social Research Council's (ESRC) research policy;
- ESRC's research policy is a sub-system of the UK's science policy.
- ESRC's management research project awards (the cases studied here) are a sub-group of the ESRC's social sciences research projects.

- Nowadays, the role of university research is changing in the competitive environment.

- Although the term collaboration means different things in different contexts, it expresses some common ideas.

- Research collaboration between university and industry might be studied as a type of inter-organisational collaboration.

The above assumptions for 'mapping literature' in this research led to the following structure for this chapter. It looks successively at:

- The historical background of the UK's research system and its science policy in general and in social sciences in particular.

- The body of literature on the changing role of university research and the community's expectation of university research .

- Another body of literature on the interaction of Public Sector Research (PSR) and industry, its diversity and policy implementation.

- Literature on R&D collaboration and the factors which cause the success or failure of this collaboration in natural sciences and technology transfer.

This leads to discussion of:

- Different types of inter-organisational collaboration, and its different theoretical bases.

- Definition of collaboration as encountered in different contexts.

This research map of literature will be traced through section one to three of this chapter.

Section one

Historical background of the UK's research system and its science policy

Research organisations and the trend of changes

A report on the promotion of the sciences in the United Kingdom (1961) gives a historical picture of the established organisations of Government research from 1675 to 1949. This shows a trend of the establishment of a series of individual institutions in the nineteenth century and of councils and committees in the twentieth, all in the natural sciences.

1675: The Royal Greenwich Observatory

1835: The Geological Survey of Great Britain

1842: Laboratory of the Government Chemist

1854: Meteorological Office

1900: National Physical Laboratory, under the control of the Royal Society

1913: Medical Research Committee

1916: Department of Scientific and Industrial Research (DSIR)

1920: Medical Research Council

1931: Agricultural Research Council

1947: Scientific Advisory Committee: Advisory Council on Scientific Policy, Defence research policy committee; and

1949: The Nature Conservancy.

Although all of the above establishments can be counted as the important actions in the government's policy for the progress of research initiatives in UK, no independent organisation is discernible for supporting research on the social sciences among this structure.

Following the establishment of the National Physical Laboratory which showed the government's support for scientific research in its own laboratories and considered

practical and commercial use of the scientific knowledge, the foundation of the Department of Scientific and Industrial Research (DSIR) which was suggested by the Advisory Council on Scientific and Industrial Research after World War I can be referred to as an important change to the UK's research policy. This Department began with three main aims, as follows:

1. To increase the supply of trained research workers and build up university research in basic science, DSIR maintenance allowances and fellowships were offered to postgraduate students, and special research grants were made to university professors and other scientists for equipment and assistance needed in the conduct of advanced research projects.

2. To encourage industrial research directly, substantial grants (originally on a pound-for-pound matching basis) were made to trade associations and firms which established and maintained co-operative Research Associations.

3. To ensure that general technical standards were improved and that other research relevant to national economic and social development were carried on.

The DSIR with three other Research Councils - the Agricultural Research Council (ARC), the Medical Research Council (MRC), and Nature Conservancy (NC) remained as the four Research Councils until late 1964.

The Labour Government which took office in 1945 was committed to the relief of long-standing social inequities and to new programmes of social and economic planning. It was convinced of the importance of R&D to the achievement of its goals, but the possibilities for implementing a science policy that took into account these new social priorities were strictly limited. (Ronayne, 1984)

It can be said that another turning point for government's relation with scientific research was the establishment of the Advisory Council on Scientific Policy (ACSP) in 1947, after World War II. This Advisory Council was responsible for giving advice for both formulation and implementation of government science policy. British science policy immediately after the war has been summarised as Follows:

> "For the most part, the Labour Government's aspirations to re-deploy science and technology for social and economic purposes came to naught. Civil research expenditure was increased significantly but pre-war institutional arrangements were largely consolidated in the post-war years. Science policy co-ordination was improved temporarily, but

> "mission-oriented' programs in military and other departments overwhelmed general policy consideration. These were expanded in the years thereafter." (Vig cited in Ronayne, 1984, pg. 129)

The 1960s was again a turning point for the British science policy and many changes took place in the government's research organisations. A Committee of Inquiry into Civil Science was set up in the early 1960s and its report to the government in 1964 recommended that: a new Ministry of Education and Science should be established; the ACSP should be abolished; and a new advisory committee, the Council for Scientific Policy (CSP) be established to advise the Secretary of State for Education and Science on the distribution of funds among the Research Councils. Before this time, the research councils had to negotiate their budgets, individually and directly with the Treasury. Another recommendation was that the DSIR should be abolished; three new Research Councils should be established - a Science Research Council (SRC), a Natural Resources Research Council (NRRC), and an Industrial Research and Development Authority (IRDA). It seems that this was the time during which thinking about priority for the funding of research took the attention of government. After these changes, the SRC was responsible for awarding research grants to universities, in place of the DSIR.

The new Labour administration which took office in 1964 implemented all but one of these proposals. The Ministry of Technology was created, instead of an Industrial Research Development Authority (IRDA), and the Ministries of Education and Science replaced by one Department of Education and Science (DES).

A significant change for the social sciences research occurred during this period of time. The Economic and Social Research Council (ESRC) was established in 1965 as the Social Science Research Council (SSRC) by Royal Charter, upon the recommendation of the Heyworth Committee on Social Studies which reported in 1965 (Cmnd. 2660). The role and responsibility of the ESRC will be discussed later in this chapter.

We can follow the changes in the organisation of the British research system in 1970, the year that government changed. This time, the Ministry of Technology was abolished, a Department of Trade and Industry (DTI) created, and a complete review of government R&D was carried out by Lord Rothschild, head of the so-called Cabinet think tank, the Central Policy Review Staff. In this report Rothschild made many recommendations of which the most significant was applying a

researcher-contractor model for R&D throughout the whole of the departmental research system.

Rothschild's report and 'customer-contractor' principle

The doctrine enunciated by Lord Rothschild - the 'customer- contractor' principle which had come to govern so much of British research policy was based upon a simple dichotomy: either research is 'fundamental' or else it must be of discernible use to a clearly identified customer. The doctrine does not admit of the possibility of utility in the absence of an existing customer. In other words, social science research had been pushed increasingly to respond to the identifiable interests of existing administrative structures (Blume, 1982, pp. 5-47). Blume refers to a disadvantage of this doctrine, a relative undervaluing of research which would, for example, have relevance only within the context of a more integrated approach to social policy, planned within a longer-term perspective.

Since 1972 the Rothschild customer-contractor principle had been built progressively into the management of government sponsored R&D. The Science Research Council (since 1981 the Science and Engineering Research Council and since 1993 Engineering and Physical Sciences Research Council) and the Social Science Research Council (since 1984 Economic and Social Research Council) were exempted from compliance with the customer-contractor principle because the first was concerned with pure rather than applied research and the second was, at the time, very small.

Gibbons (1982) argues about the re-organisation of research, and points out that any discussion of functions of research in institutions of higher education for the late 1980s must take account of the reorganisation of all government research and development activities which took place as a result of the Rothschild reforms put forward in the government White Paper of 1971 (Cmnd 4814).

The review on existing arrangements and related discussions

By 1976 it seemed that new system was not providing the expected results and the government reviewed the arrangements that existed for the co-ordination of its research activities and applied R&D. At the same time, the Council for Scientific Policy (CSP) was replaced by the advisory Council for Applied Research and Development (ACARD) as a separate body to improve the interface between

government and external organisations in the area of applied R&D. Unlike the ABRC, it concentrates mainly on technology and the industrial application of science rather than on 'pure' science - the remit of research councils and ministries. (Ronayne, 1984).

Moreover, there was a difference between these two establishments which was the combination of their members. The ABRC had a composition closer to the former Advisory Council on Scientific Policy (ACSP) which was a mixture of independent scientists, industrialists, heads of research councils and government scientists. This Board (ABRC) did not have a full-time chairman.

Two events during 1979 affected the fortunes of the SSRC (Smith, 1982): first, the review of the Rothschild Report, and second the election of a new government. In the first round of implementing the Rothschild reforms, it was decided to leave the Research Councils under the Department of Education and Science (DES) and to re-orient parts of the Medical Research Council (MRC), the Natural Environmental Research Council (NERC) and the Agriculture Research Council (ARC), and in effect cash transfers to the appropriate departments. As mentioned earlier, it was decided to leave the resources of the Science and Engineering Research Council (SERC, now EPSRC) and Social Sciences Research Council (SSRC, now ESRC) untouched for the time being.

The 1991 Government White Paper which abolished the binary divide in British universities brought the former polytechnics (new universities) into direct competition with the traditional (old) universities for research funds from the Funding Councils based on periodic Research Assessment Exercises (RAEs).

The outcome of the 1992 RAE showed a predictable gap in research performance between the two groups of institutions. McKenna (1996) argues the challenge facing the new universities for narrowing this gap and developing a small number of centres of research excellence. The intense selectivity which will be involved in the allocation of available research resources has been seen as another consequence of this gap.

As the policy framework for dealing with the different aspects of the national research system is one of the important factors in providing science policy, it seems that the policy context of each country has a great impact on shaping the amount of government intervention in public sector research.

Faulkner and Senker (1995) develop this notion and refer to the general desire for reducing the public sector and minimising government intervention in UK government policy for Public Sector Research (PSR), from the beginning of the Thatcher administration in 1979. Regarding different reports on the subject, they argue an increasing trend in the effort of the different government research organisations for providing reports on the subject of industry-PSR linkage. Webster (1988) points out that between 1981 and 1987 no fewer than seven reports were published by the Advisory Board for the Research Councils and the Advisory Council on Applied Research and Development on the subject of industry-PSR linkage. Faulkner and Senker (1995) compare the recommendations of some of these reports (the Merrison, ABRC/UGC, 1983, Muir Wood report , ABRC, 1983, and Mathias Report, ABRC, 1986). This comparison shows a contrast between different approaches towards industry-PSR. They suggest that the first two reports urge universities towards more engagement in applied research as a response to the government's cuts without raising the probability of conflicts of interest, whereas the latter report raises a question about the extent to which industry links could or should be strengthened. According to one of these reports (Mathias, 1986) public and private sector funding of research should be 'complementary'. It has also been suggested that 'strategic' research has to be the priority of PSR and the position and responsibility of the public sector for funding of academic and government laboratories should not be expected to be replaced by industry. Regarding the result of this study, the same discussion will be developed later about the extent to which research collaboration between academics and practitioners should be encouraged.

Interaction of public research sector (PSR) and industry, its diversity and policy implementation

There has been an increasing incidence in industry-university linkage during the two last decades. The amount of money spent by industry on research in academic and government laboratories has been determined by Faulkner and Senker (1995) as an indicator for this increasing trend since the early 1980s. They refer to the results of an OECD report (1990) which shows at least a twofold increase in the absolute level of industrial support for PSR between 1981 and 1987 in several industrialised countries. According to another report (British Chambers of Commerce 1993), in the UK around 54 per cent of this industrial support in 1991 went to government laboratories and 46 per cent to universities. Industry funding accounted for nearly 12 per cent of government laboratory funding compared with 8 percent of research

funding in universities. The level of this support for PSR institutions varies in terms of different fields and institutions. Webster (1994) discusses this diversity, considering that the overall average level of this support across the OECD countries was reported as between 4 and 10 percent of Public Sector Research income.

This argument continues with reference to Webster and Etzkowitz's (1991) suggestion of a 'second academic revolution' with significant implications for academic practice and norms (The 'first revolution' occurred between the wars with the beginning of substantial government support for university research). Ziman (1983) discusses the 'collectivisation' of public and private sector 'science' as part of an emergent 'national research system'. Weingart (1978, quoted in Faulkner and Senker, 1995) sees increasing collaboration as a way of re-integrating the activities of producing and applying knowledge which were, in effect, separated as a result of the institutional development of industrial and public sector research organisations.

One of the OECD's reports on science and technology policy (1988) has pointed out that several OECD countries have recently created new organisations at the national level to move closely to integrate their efforts in science, technology and industry. For example, the main elements of the UK Government R&D system are the Cabinet Office, and the Advisory Board of Research Councils (ABRC) which in addition to other responsibilities is also in charge of promoting close liaison between Councils and the users of their research. The most important function that the ABRC performs is the allocation of resources to the five Research Councils.

After the general election of 1992, the Prime Minister established new arrangements within Whitehall in order to improve the government's handling of science and technology policy. The Chancellor of the Duchy of Lancaster, supported by a parliamentary secretary, was given specific cabinet level responsibility for the area. This was the first time for the thirty years that a cabinet minister had been so designated, and the Office of Science and Technology was established (OST transferred to Department of Trade & Industry in 1995) bringing together elements of the former Department of Education and Science and the Cabinet Office. (The White Paper, *Realising Our Potential*, May 1993, Cmnd 2250, pg. 2).

The 'White Paper' has been said (The Independent, 24 May 1993) to be the best chance for science and technology to change priorities. It has been claimed to promote closer links between government and industry. In addition, it proposes a new approach to science and the need for technology foresight in choosing

priorities. In the other part of this 'White Paper', besides some organisational changes, we read:

> "Technology foresight, jointly conducted by industry and engineering communities, will be used to inform Government's decision and priorities. The process will be carefully designed to tap into the exercise of people closest to emerging scientific, technological and market developments. The aim is to achieve a key cultural change: better communication, interaction and mutual understanding between the scientific community, industry and Government Departments." (Cabinet Office, 1993, pg. 5)

Faulkner and Senker (1995) argue this emphasis through the 'White Paper' in terms of a change from the linear model of innovation to an interactive model.

The role of the research community in wealth creation has also been emphasised and building a network through an interactive model suggests that:

> "Steps should be taken which, on the basis of other countries' experience, will help to harness {our} strength in science and engineering to the creation of wealth in the United Kingdom by bringing it into closer and more systematic contact with those responsible for industrial and commercial decisions." (Cabinet Office, 1993, pg. 4).

The basic objective for government-funded science has been claimed as: 'to improve our national competitiveness and quality of life'. The 'White Paper' also sets out the main groups of 'user communities' for each Research Council.

As we see, the central theme of the 'White Paper' is the encouragement of industrial and academic partnerships not only in both postgraduate research and training, but also emphasising improvement of their relationships, receptiveness, and communication through 'technology insight'

The changing role of research councils and historical background of Economic and Social Research Council in UK

Traditionally the research councils have been the organisational embodiment of the relative autonomy of the scientific community. Their position as "buffer" organisations between the political arena and the scientific community guaranteed the allocation of research funds according to the criteria of the scientists themselves. Accordingly, research councils interpreted their role as a responsive one, awaiting the research proposals submitted by (university) scientists(OECD, 1982).

The role of research councils in responding to community expectations and needs is very sensitive. In recent years most research councils try to establish their priorities with regard to an additional consideration about users' requirements. For example, The EPSRC in its 1995/96 programme emphasises that the council has been implementing new ways of working, establishing programme priorities, and determining the balance of the programme. In the task of establishing programme priorities and balance, the Council has been assisted by two expert groups: the Technical Opportunities Panel (TOP) made up of individuals able to advise Council on new opportunities for research, and the User Panel (UP) made up of representatives of industry, commerce, government and the service sector who can help the council identify user requirements. TOP and UP will in turn be receiving guidance from a variety of sources, including learned societies and organisations representing industry (EPSRC, 1995).

According to a report by OECD (1982), however, the role and functions of research councils in most member countries have been enlarged. Policies directed towards more selectivity and concentration as a result of scarcity of resources on the one hand, and policies oriented towards the attuning of scientific research to socially relevant goals on the other, implied a far more active role for the research councils, as well as the extension of their activities to new areas, such as national programmes. The policy of the British SRC, oriented towards more selectivity and concentration in its support of university research, and the German DFG's 'Sonderforschungsbereiche', are examples of the former tendency. Interventionist modes of funding directed towards science-external goals are implemented in the policies of some research councils in quite different ways: the national programmes executed, for example, by the FNS (Switzerland) and the CNR (Italy); the establishment of a new NAVF sub-council for societal planning in Norway; the French DGRST 'actions concerts'; et cetera.

These changes in the definition of the tasks of research councils affect, as well as reflect, their position between the scientific community and the governmental sphere. It could be surmised that, for these councils, some kind of tension can arise between the demands internal to science on the one hand and the increasing demands external to science on the other. In this light, one can understand the complaints raised by some university scientists that it seems as if research councils are beginning to act like instruments of government, with an increasing emphasis upon committed funds (Goldsmith, 1984, pg. 68).

It has been suggested that developments in the sphere of the research councils are all the more significant for university research because they accompany the growing importance of research council funds for research. It therefore seems necessary to assess to what extent they are still able to state scientific priorities, and thereby still able to plan their intermediary role with respect to protecting research quality and also co-ordinating scientific research in the universities.

ESRC is one of the largest sources of funds in the UK for research and training in the social sciences. It was established in 1965 as the Social Science Research Council (SSRC) by Royal Charter, upon the recommendation of the Heyworth Committee on Social Studies which reported in 1965 (Cmnd. 2660). The Clapham committee had, in 1946, considered the establishment of a Social Sciences Research Council (report of the Committee on the Provision for Social and Economic Research (Cmnd. 6868), but this was not accepted. The Royal Charter granted this on 29 October 1965, was amended on 20 June 1973. In November 1983 the Privy Council agreed to the council's request to change its title to the Economic and Social Research Council (ESRC) as from 3 January 1984.

The Council's remit covers the fields of education, management, sociology, environment and planning, social psychology, economics, statistics, politics, economic, and social history. All ESRC research is carried out in Higher Education Institutions (HEIs) or independent research institutes; none is 'in house'.

The ESRC operates four different modes of support for its research: (1) research initiatives; (2) research and resource centres; (3) research grants; and (4) research seminars. These modes of support are presently organised in a structure of six interdisciplinary committees - three Research Development Groups (RDG's), a Research Grants Board, a Training Board and a Research Resources Advisory Board (Government funded R&D, 1993).

The five government-funded Research Councils in the UK are to be among the principal agents in developing the objectives of the 1993 White Paper on Science, Engineering and Technology, *Realising our potential* , and each has been given a new mission. The ESRC, like other government-funded research councils welcomed the new direction and provided the following mission statement:

> "To promote and support high-quality basic, strategic and applied social science research[1] and related postgraduate training to increase understanding of social and economic change, placing special emphasis on meeting the needs of the users and beneficiaries for research and training, thereby enhancing the United Kingdom's economic competitiveness, the effectiveness of public services and public policy, and quality of life (ESRC, 1994 a, pg. 2).

The ESRC's 1994-99 Corporate Plan has been claimed to be their initial response to the 1993 'White Paper' on Science, Engineering and Technology *'Realising Our Potential'* (Ibid. pg. 1).

Following the emphasis of the 1993 'White Paper' on a comprehensive outlook of understanding and application of science, ESRC highlighted the three aspects of its mission as follows:

- The emphasis on meeting the needs of the users and the beneficiaries of social science research and training. These include business, government, non-profit organisations, the media and the general public, as well as academic researchers;

- The explicit inclusion of the role of applied research in their remit;

- The recognition that public funding of the economic and social sciences has a wider purpose in improving economic competitiveness, public policy and public services and the quality of life.

In their long-term corporate aims, again, among the other aims, there is an emphasis on increasing the involvement of the different users of social science research and training in design, management and evaluation of all the ESRC's activities, and thereby increase the benefits of research to the UK economy and society.

In summing up these changes, we can see the evolution of the ESRC's new Themes:

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[1]According to the 1993 White Paper: Realising our potential: A strategy for Science, Engineering and Technology, "basic research is , by definition, research without a specific end in view which here the market does not operate, and the government has a major role in funding this type of research. Strategic research - where the work, although directed towards practical aims, has not yet advanced to the stage where eventual applications can be clearly specified - represents an important area of shared interest between industry, government, research charities and other organisations. Applied research which includes research and experimental development (the development of specific products and services for existing process) is mostly undertaken by firms, though in some instances it may be funded by public sector. " (Cabinet Office, 1993, pp. 15-16).

1993

White Paper on Science and Technology: A strategy for Science, Engineering and Technology.

ESRC given new mission to strike a balance between academically excellent research and its utility.

1994

ESRC Chairman, Dr Bruce Smith, convenes a council Strategy Group to address how ESRC should respond effectively to the twin challenges laid down by the White Paper: Maintaining the quality of ESRC funded research and training, at the same time as increasing the emphasis on its relevance to the wider non-academic world.

1995

Council agrees to the recommendations of the Strategy Group to implement strategic thematic priorities.

ESRC embarks on a massive consultation exercise. Questionnaires are sent to over 500 individuals in business and government; focus groups of users are convened to discuss the research needs of industry; and learned Societies are consulted through the Research Support Teams. ESRC also consults with the Wider 'ESRC Family' or Research Programme and Centre Directors.

ESRC commissions a number of scientific reviews to assess the 'health' of social science research funded by ESRC.

Views and responses are refined into a number of broad areas. (ESRC Newsletter, 1995, 29, pg. 5).

> ESRC launches its nine thematic priorities and publishes the Thematic Priorities Document. These priorities have been reviewed each year afterward and the following is the 1997 version:

- *Economic Performance and Development*
- *Environment and Sustainability*

- *Globalisation, Regions and Emerging Markets*
- *Governance, Regulation and Accountability*
- *Technology and People*
- *Innovation*
- *Knowledge, Communication and Learning*
- *Lifespan, Lifestyles and Health*
- *Social Inclusion and Exclusion*

The only changes in the priorities included two of the nine themes which were retitled: Technology and People, and Knowledge, Communication and Learning. These thematic priorities took up 65 percent of the ESRC's budget on research and training. It is worth noting that the research grants scheme which had a budget of £15m in the same year was outside the thematic priorities approach. Funding in this scheme is based on scientific merit which aims to support the research proposals from academics and their subject areas (Social Sciences, 1997, 36, pp. 1-2).

Quality, utility and accessibility have been said to be the hallmarks of ESRC-funded research (ESRC, 1997, Annual Report 1996/97). The ESRC's research is divided into three main areas according to how it is financed: Research Programme, Research Grants and Research Centres.

Research Programmes are groups of independent but related research projects, on special social science issues.

Research Grants are awarded for particular research projects, on the basis of their academic excellence and scientific importance, and irrespective of their discipline or subject area. Each grant application is assessed and graded by the Research Grants Board, consisting of 21 senior academics from a wide variety of social science disciplines.

Research Centres undertake long-term research on crucial social science issues. They are funded for an initial period of ten years, subject to satisfactory mid-term review, and are built around established research teams. The Centres are selected by means of an annual competition, open to senior academics (ESRC, 1992, Annual report).

Collaboration with users of research has been emphasised repeatedly by policy makers in the ESRC.

> "We now encourage collaboration with users throughout the length of a research centre or programme, not just at the end of it. Such an inclusive approach has a positive impact on both the quality of the research and the utility of its findings. Developing dialogue with the user community is a crucial activity." (ESRC, 1997, Annual Report, Chairman's statement, pg. 1).

Although as we can notice, the main focus has been on the collaboration with users in relation to the activities of research centres or programmes, there seems a hidden consideration in the above focus. In other words, in every collaboration, these are individuals who finally have to work together, to communicate and trust each other for achieving their shared objectives in same project, rather than just organisations. So, the support of the collaboration concept between academics and practitioners in the areas funded by ESRC needs a great amount of understanding of the process of collaboration between two communities. How can this collaboration be stimulated in different levels of decision making such as identifying research priorities, involvement in the process of research projects, and implementation of the research findings? How does it really work in practice? In other words, is the accomplishment of collaboration as easy as choosing it as a main theme for research policy? A study like this can be an attempt to shed light on some aspects of the answers to these questions.

The1995 survey of industry-university research links by Department of Trade and Industry (DTI, 1996) which was the first of its kind excludes social sciences research projects. It has been said that the project demonstrated considerable industrial co-operation by most universities, although there is variation in the activities, mechanisms and outputs. Data were collected from central bodies and also from a questionnaire to which 80 universities responded. This survey was commissioned by DTI to assess the nature, extent and results of industry-university research co-operation in the UK. The period of study was 1991-94 which includes just one year after the 1993 'White Paper', so, it cannot provide enough information on the effect of the new science policy on the extent of these links

There are three principal mechanisms for co-funding industry research in universities which have been channelled through UK Government: Collaborative Awards in Science and Engineering (CASE), the Link programme, and the Teaching Company Scheme (TCS).

CASE awards encourage industrially relevant research work at universities by financing research students through a combination of Research Council and industry funding. The distribution of CASE projects at 31.7.94 shows: Materials 19%, Electronics 5%, Environmental 9%, Chemistry 21%, Physics 5%, Biomedicine 17%, Biotech 5% Engineering 14%, Others 5% (DTI, 1996).

LINK is a Government wide initiative to promote project based technology transfer from scientific research to UK industry. Link is organised in technology specific programmes; 38 were in existence in September 1994. Projects within programmes usually support work in universities at post-doctoral level. Link projects at 30. 9. 94 comprised: Electronic Comms & IT 31%, Energy & Engineering 24%, Materials & Chemicals 12%, Bio-Sciences & Medicine 18%, Food & Agriculture 15% (Ibid.).

TCS supports partnerships between companies and universities for technology transfer and to stimulate the development of graduates for industrial leadership roles. TCS partnerships involve one or more graduates carrying out a commercially significant R&D project in the company partner's premises, under joint academic and industrial supervision. TCS partnerships at 30. 9. 94 consisted of Electronic & Measurement 31%, Food & Agriculture 5%, Engineering & Materials 40%, Others 5%. (Ibid.)

The focus of all three schemes has been mainly on collaboration between university, industry and government on natural sciences and technology transfer projects.

The changing role of university research and community's expectation

In the sphere of higher education doubts and perplexity have taken the place of the optimism which, it seems, prevailed throughout the 1960s, and which was based on the assumption of its continuous expansion. The optimism was twofold. There was the quantitative aspect (expansion), and the confidence that the expansion would automatically bring about a certain democratisation of the university systems. The outstanding example of such optimism was the paradigm developed by Martin Trow of transition to "a higher education for the masses' and to an age of universal higher education." (OECD, 1982, pg. 10).

This debate continues by referring to a new approach to defining the aims of higher education as being responsible for providing a 'public service function' which makes a contribution to the solution of major problems faced by the local community and by society at large, and to participate directly in the process of change. This seems

a dilemma for higher education. How can it keep the balance between producing knowledge for the purpose of knowledge and applying research for solving the problems?

Smilor, Dietrich and Gibson (1993) have developed a discussion about a new paradigm of the entrepreneurial university. This new paradigm requires a more direct involvement in the commercialisation of research activities, a more proactive approach to regional economic development, a more problem solving and data driven approach to curriculum development, and a new emphasis on applying the principles of total quality management to university operations.

Shifting the traditional relationships among industry, universities, and government toward entrepreneurial relationships has been one of the consequences of the new approach to the changing role of universities. This shift includes: the commercialisation of the university; innovative regional technology programmes; links between small entrepreneurial firms and university laboratories; and collaboration between large research-based corporations and start-up companies (Johnston, R.F and Edward, C. G. 1987 in Salisbury, 1993).

Feller (1990) discusses the economic aspects of university involvement in the commercialisation of research. He views any increase in commercialisable research in universities as dangerous because: "it will shift academic researchers from the social roles in which they are most efficient, as suppliers of a collective good - scientific and technological knowledge." (Ibid. pg. 335). Moreover, the increase in formal collaborations has been said (Macdonald, 1992) to be a possible reason to reduce the wider flows of information to industry as well as between academics.

On the other side, there is an argument that the public's view of the university is shaped by a number of factors. OECD (1982) in the report: 'the university and the community, the problems of changing relationships', suggests some independent factors which can be distinguished - the social position of the particular sector of opinion being questioned, and its knowledge of university institutions. What is expected of a university, and differing public attitudes to particular sectors of university activity? These factors may contribute, individually or in combination to the diversity of the images about university and its main role.

One more point is that university research has a number of distinctive functions. Another report by the OECD (1981) hints at the notion of the diversity of these

functions regarding the different surrounding systems in which university is responsible for doing research. These functions have been distinguished as follows:

University functions in respect of:

The National Research System	Maintenance of scientific infrastructure across all fields of science.
	Maintenance of capacity to develop potential in new fields of science.
	Sustain national centres of expertise in selected areas.
	Stimulate emergence of new conjunctions of idea and hence the development of pluri-disciplinary research.
	Maintenance of scientific standards.
	Production of future generations of scientists through training in research method
The Education System	The quality of undergraduate teaching and introduction to research methods.
	To carry out the basic work necessary to underpin future innovation.
Economic and Social Systems	Contribute to innovation in public policy areas through 'strategic' research.
	Applied research for industry, community, government.
	Provision of consultants for industry, government departments and the community.
	The advancement of knowledge.
The cultural system	Fostering of individual, communal and national self-awareness.
	National identity: interpretation of national culture, heritage.

Source: derived from OECD, 1981, pg. 10.

It is worth noting that the awareness of the above-mentioned diversity of university functions and its influencing role on the type and nature of university research can contribute to providing a more realistic and practical view of existing demands on university research. This focus may also improve the intermediary role of research councils between government and scientific community in each country, regarding the user communities' requirements in society.

Porter (1993) discusses several global trends which are affecting the research capacity and position. He has highlighted a new era in the 1990s focusing on a new call for government, industry, and academia to sit down together, to design the co-operative mechanisms modelled after international successes and to recognise that there is a necessity to consider a combination of business and civic cultures. Porter (1993) refers to the essential emerging trends for this need. The political climate for developing strategies for scientific collaboration, fostering more collaborative mechanisms as an expanding scope of free trade agreements, and regional trade formation have been discussed alongside the importance of the role of information technology and information sharing capacities in today's global scientific community. The increasing capacity of universities to adapt to a co-operative environment has been pointed out as another change to the culture of isolation in academia.

Stankiewicz (1986) suggests a new concept of the university:

> "The model of university which has prevailed during the last hundred years or so was based on the symbiosis of teaching and research. However, the general pattern has been clear enough and present trends in technology demand that this fundamental symbiotic pattern be modified and broadened to include technology generation and transfer." (Ibid. pg. 113).

The change in the status of academic knowledge from a free good to a potentially saleable commodity is a subject of debate among academics. Some of them resist this notion as a real threat to the future of scientific knowledge, whereas the other group of academics support the concept of academics' involvement in the responsibility for application of their knowledge and its specific economic benefits to society, to the university and to themselves. This difference in academics' approach toward the main role of university and its research can be an important observation for their involvement in research collaboration. The results drawn from the data collected for this study showed that, although the majority of academics'

first priority is teaching and research for producing scientific knowledge, there seems a consensus that , at least in management disciplines, academics support the importance of the relevance, application and benefit of their research to the 'real world' problems in organisations.

The review of literature shows a general trend and development within the science and technology policy of the developed countries which indicates the. changing role of university and its research. Gibbons et al (1994) suggest three phases of science and technology policy which include: policy for science, science in policy, and policy for technological innovation. Although the main focus of this analysis is based on scientific and technological knowledge rather than social science knowledge, it provides a background scene in which the shift of the mode of knowledge production has happened over the past half century.

> "...however, a number of general issues arise as a consequence of the transformation of knowledge production process, issues which policy-makers from all countries will have to consider." (Gibbons et al., 1994, pg. 157).

The main issue in the phase of policy for science was the growth of the scientific enterprise per se while in the second phase, science in policy, both scientists and policy makers advocated a reform: policy needed to shift from policy for science to policy in which science was seen to support the objectives of other policies. The Brooks Report (OECD, 1971), the Rothschild Report in the UK (1971), and the Research Applied to National Needs (RANN) programme in the USA, have been referred to as examples of this new perspective(Gibbons et al. Ibid., pg. 158-159).

The third phase is distinguished by policy for technological innovation in which policy makers emphasise the role of science in achieving national goals of industrial innovation and competitiveness. Another distinction among these three phases of development in science and technology policy is the changing role of principal decision-maker in this process: for example, in the first phase, the key decisions were to be taken by scientists while in comparison, during the second phase - science in policy - both scientists and policy-makers were involved, and within the phase of policy for technological innovation the role of networks and other informal modes of communication among the active partners was indicated as an important element for providing an essential base for decision making in this respect.

The new perspective of science policy shows the context within which research collaboration is encouraged by policy makers, though again, its focus is mainly on science and technology issues rather than social science research. Another point that is worth noting is the importance of considering the complementary nature of these three science policies in terms of different types of knowledge production and academic research - basic, strategic, and applied projects.

Changing patterns of funding is another change in universities. An OECD report (1984) points out that in almost all member countries, university research is funded through a variety of sources: funds which can be set aside from the university's own operating budget, from research councils, from private foundations, from mission oriented government departments and Ministries, and from private industry. This diversity of funding sources adds another aspect to universities' responsibility to consider the benefit of their research to user communities and at the same time to their universities and also society.

The summary of two different studies can be used to draw a picture of the user communities' view of university research and their expectations from universities. These examples provide a revealing picture of the real world of practice for the involvement of universities in research.

In 1977 the school of Commerce and Business Management in Bordeaux, France, was asked by the monthly Le Monde de l' Education to carry out a study on the links between firms in Aquitaine and the university. Of 131 firms covered by the survey, four (3 percent) had research contracts with the university (all four employed over 100 people), 77 percent of the firms concerned did not know what services the university can provide. Those which had some idea mentioned continuing training (15 percent), case studies (7 percent), training for executives (5.3 per cent), computerised management (4.6 percent), technical studies (4 percent), the regional and urban economy (1.5 percent), documentation (1.5 percent), and translation of contracts (0.76 percent). A third of the firms had not arranged any continuing training for their executives (45 percent of the firms employing less than 50 people). Twenty firms out of 131(15 percent) looked to the university for continuing training for their senior staff (OECD, 1982, pg. 29).

Another study by Avveduto, et al. (1990) in Italy on collaboration in science and technology between university and industry reveals other aspects of this relationship. They conclude that collaboration in science and technology is a

relatively unexplored issue in Italy. The study analysed 900 collaborative agreements concerning 344 firms, 462 university institutes (only scientific and technical disciplines have been included) and 20 polytechnic departments in Turin and Milan. This project was said to be the first research work on this scale in Italy. The study showed that the most widespread kind of co-operation agreement was the 'research contract' which accounts for 63% of the total. According to the results of the study, in most cases, a company provides the financial resources and the university department carries out the research. The findings say that co-operative firms come mainly from the more industrialised northern regions of Italy (69%) which are export-oriented and devote to R&D some 5% of turnover and, on average, collaborate with four universities. With regard to the findings of the study, we can see that the collaboration with universities is dependent on different factors such as the geographical location of a company and its main focus and orientation of production. However, the collaboration between university and industry does not always seem rewarding. While the majority of these firms considered technological innovation as very important, only 12% of firms found the collaboration completely satisfactory.

There are two revealing points in both of the above reported studies. One is the large number of firms (77%) in the first study on the links between firms in Aquitaine and the university in France which showed that they did not know what services the university can provide and the small number of firms (3%) that had research contracts with the university. Another point is the little satisfaction of the firms (12%) at the collaboration with a university and its contribution to technology innovation in the study in Italy (Avveduto, et al., 1990). The significance of results is that, despite the fact that the trend of co-operation between university and industry has been dramatically changed during recent years, the problem of the lack of practitioners' awareness of universities' research and its relevance to their work is still a matter of difficulty for academics and practitioners to come together for doing research. The problem of dissemination of universities' research for the purpose of communicating the findings of academics' research with non-academic users was also approved by data gathered for this study.

From the other side, the results of some recent studies indicate the benefits of research interaction between industry and Public Sector Research (PSR). Link and Rees (1990) in their study of 209 firms found that the return on R&D expenditure is over two and a half times higher amongst firms which collaborate with universities compared with those that do not. Similarly, another study demonstrates that:

"collaboration not only increases future industrial research, but also speeds up the transfer and utilisation of academic research in industry." (Berman, 1990 quoted in Faulkner and Senker, 1995).

Whatever the results show, it seems that two factors should be considered in collaboration between university and industry. First, it is happening in different frameworks of working together. Second, there are usually limitations and difficulties in practising collaboration. Stankiewicz (1986) makes a similar point that a variety of institutional, cultural, and psychological factors make collaboration between university and industry exceedingly difficult. The data gathered through my study revealed some aspects of these difficulties which are discussed within the next chapters of data analysis. Although these problems may be different and even more complicated in the social sciences research, there seems to be a general barrier to the integration of academia and industry or business in research collaboration.

Section two

Research and Development (R&D) and collaboration

> "Research and experimental development comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications" (Frascati Manual, [B.56], pg. 15 in Bosworth et al. 1993, pg. 15)

There seems to be a difference between the UK and other countries in the application of this definition. It has been said that the UK authorities have generally preferred to retain an earlier international definition of R&D which is:

> "creative work undertaken on a systematic basis to increase the stock of knowledge and to use this stock of knowledge to devise new practical applications." [QRL. 153, pg. 3 in Bosworth, et al. 1993, pg. 15).

This difference can be also reflected by the definition of science in which the focus of definition may be transferred from one group of science to another. This notion has been indicated by Radnitsky (1983).

> "Science is the product of an activity, this activity is research. The products of scientific research are embodied in scientific literature and in scientific technology. 'Science' is used here in the wide sense in which it is used in all European languages except English, i.e., as a general term which includes not only the natural sciences, but also the social sciences,

> humanistic scholarship and historiography, the latter are often referred to as Geisteswissenschaften or as *sciences humaines*." (Ibid. pg. 234).

The above definitions of science and R&D can be helpful in illuminating the context of what we are referring to in relevant literature.

The importance and necessity of collaboration in scientific R&D have been topics of considerable debate during past years. Bramorski and Manohar (1993) point out the necessity of a stable framework for co-operation between industry, government and universities to foster progress in R&D projects. But, "this objective is frequently hard to accomplish since each group has different goals." (Brown, quoted in Bramorski and Manohar, 1993).

Different value scales of higher education and industrial sectors are discussed by McBrierty (1993). Shenhar (1993) suggests a combination of factors as orientation differences between different parties in this collaboration .

The tendency for increasing the opportunity for collaboration among university, industry and government is not totally a new area of concern. For example the deputy director of the European Productivity Agency (E.P.A) in the report of the fourth international symposium on organisation and administration of applied research: methods and possibilities of co-operation in applied research (1959) affirms:

> "The aim of E.P.A in sponsoring such a symposium is to provide a forum for discussion between qualified persons from industrial, government and university circles interested in applied research, to make possible the exchange of ideas on common problems and to compare experiences".

According to literature review through the related areas, although many studies have been done to date and some literature is available on industry-university-government collaboration in science and technology R&D, very little is known about this process in the social sciences. So, this section attempts to use general discussions on collaboration between university and industry by reviewing the relevant literature on R&D collaboration.

Review of a selected and annotated bibliography on industry-university co-operation between 1987 and 1993 (Salisbury, 1993) gives us a general idea of trends and focuses of this area of study and its importance. One of the main points of agreement in these articles is the benefits and value of business/academic partnership from both the corporation and university perspectives (American

Association of State Colleges and Universities, 1987; Johnston and Edward, 1987; Anderson, 1987). But, what are the motives for entering into research collaboration?

Conflicts and obstacles which have plagued the university-industry relationship and misconceptions on both sides is another dominant point in these discussions (MacHenry, 1990) and in most of the studies a necessity for formalising the relationship between university, industry and government has been raised.

Motivations for collaboration

The motives which firms might have for seeking academic assistance has always been an important question. Stankiewicz (1986) offers the following motives as the most common reasons for asking academics' co-operation:

- The need to solve a pressing technical problem, in which case the university is viewed as a potential 'trouble shooter';
- The need for general advice concerning the firm's technical programme and its management;
- The wish to acquire permanent access to some facility or skill available at a university;
- The desire to assure access to or recruitment of certain types of specialists (researchers, engineers);
- The need to increase the 'depth' of the firm's own R&D by coupling it to an academic research base; or
- The hope of acquiring a window on some important section of the research front (Ibid. pg. 43).

In short, industry's main motives for using university's assistance seem to be filling into the gap of its 'in-house' technical expertise and benefiting from the potential research resources in universities to overcome present and future problems. This aspect has been, again, the focus of studies in R&D in natural sciences, engineering and technology transfer rather than social sciences areas and management research. The main motives and benefits of collaboration for the researchers have been suggested to be, generally, access to resources, extension of the research database, providing a more comprehensive research agenda, and establishment of a track

record in collaboration (ESRC, 1994). But what are the particular motives of practitioners in different organisations for entering into collaboration with *management* academics in universities? This is one of the research questions for which the study aims to provide an answer.

Barriers to collaboration and different types of conflicts

The potential obstacles to collaboration between university and industry have been a central theme in almost all studies on this subject. Corsten (1987) according to his study on the problems of co-operation between universities and enterprises provides a list of these obstacles from existing literature irrespective of the size of firms. These are the problems of co-operation from the practitioners' point of view:

- Attitude of many academics, essential unwillingness to cooperate with industry, or different systems of values;
- Inclination towards perfectionism;
- Lack of practicability;
- Unrealistic and uncompromising attitudes promoted by the search for scientific truth;
- Lack of regard for deadlines and profitability;
- Communication difficulties, and
- Confidentiality problems. (Ibid. pg. 295).

Corsten's research (1987) is a comparative study based on the size of enterprise. The findings of his investigation during which 1055 enterprises (from the Federal Republic of Germany, France, the United Kingdom and the Netherlands were investigated) show the differences on answers regarding the size of enterprises. These enterprises were asked about their experience of co-operation with universities in dealing with technical and scientific problems. Given the results of the study which showed that small and medium-sized enterprises (number of employees less or equal to 499) tend to have little experience in co-operating with universities and co-operation with universities increases with the size of enterprise, the problems of co-operation have been reported differently. For example, the problem of communication between academics and businessmen seems more

prominent in small and medium-size enterprises than in larger enterprises. Conversely, the problem of confidentiality has been reported with a higher importance by larger than by small and medium-sized enterprises.

If two parties who apparently stand to benefit from an exchange of goods or services do not engage in such an exchange, we can suspect that either they are unaware of the advantages they are forgoing or else regard the costs of the transactions required as too high compared with the expected gains (Stankiewicz, 1986, pg. 25). He suggests the ignorance of potential benefits of closer links between the universities and industry as a significant factor inhibiting interactions between the two and discusses the institutional conflicts in university-industry interactions. These conflicts have been subsumed regarding research priorities, the allocation of personal and material resources, social conflict due to the incommensurability of value scales, conflict over the disciplinary nature of academic research, conflicts concerning free communication and secrecy, conflicts over property rights, and conflicts due to the organisational incompatibility of university and industry (Ibid.).

Huxham (1993a) in a different context from research collaboration between university and industry, not only suggests the incompatibilities in collaborative capability as an obstacle to effective collaboration, but argues many additional factors which have been cited in other studies: disparity of power between the organisations or the individuals involved (Gray, 1989; McCann, 1983); language and culture differences - organisational or professional - between the organisations involved (Gardner, 1991); lack of commitment to the issue, to the notion of collaboration, to the other participants or to the collaborative process (Huxham, 1991), and involving key stakeholders (Coe 1988; Mattessich and Monsey, 1992; McCann and Gray, 1986), are examples (Ibid.). Some of these obstacles can be experienced in the research collaboration between academics and practitioners and cause conflict between the two sides. For example, from the researcher's point of view, disparity of power between academics and practitioners involves two different types of knowledge, theoretical knowledge which is dominant in academics, and practical knowledge which is accommodated by managers. This seems to be a distinctive aspect of involving non-academic users in the different stages of management research. Language and culture differences between academics and practitioners is another obstacle which was supported by the finding of this study as potentially causing conflict between collaborators.

Faulkner and Senker (1995) discuss the barriers to public-private research, especially industry-university research as a major preoccupation of policy research on the subject. They refer to a study by the Confederation of British Industry in 1971 which singled out failure to communicate as the obstacle to collaboration. Different research priorities of academia and industry and two different time scales for completing work are recurring themes in other studies.

Fowler (1984) in his study for searching the relative significance of various barriers to collaboration asked 80 research management-oriented executives in US industry and 78 people having approximately the same orientation at leading US research universities to rank the factors identified in earlier studies and to cite any other barriers. The main types of barriers which have been revealed from the results of his study relate to differences in orientation and culture. The top-ranked impediments which were reported include: industry's primary orientation to short-term profits and product improvement; the mismatch between universities' orientation towards basic research and industry's near term needs for new or improved products; and attitudinal factors creating a generalised culture gap or lack of understanding (cited more frequently by both executives in industry and academics at research universities). The most frequently cited barrier by academics was the conflict between the right to publish and industry's need to protect proprietary information. The potential for other conflicts of interests had been recognised by both industry and academic researchers in Fowler's study (1984).

Avveduto, et al.(1990) draw two main conclusions from the data of their study on university-industry collaboration in Italy. First, were the different views and expectations of industry and university on the nature of research which make a barrier to collaboration. Second, the significance of government's role for encouraging such co-operation has been realised by their study. They (Avveduto, et al., 1990) also emphasise the importance of setting up an environment suitable for collaboration and looking for a mutual understanding of both academic and production systems' special needs and working styles.

Elden and Levin (1991) sought to examine the collaborative research between workers and academics. Regarding the results of their study, a contradiction around the issue of control over content and process is the core of collaborative research between two groups. They discuss the problematic nature of the collaborative process. Different time perspectives and dissimilar views and expectations are the other cited differences between academics and workers.

Shenhar (1993) argues the differences between the parties involved in research, their objectives for the projects, the methodology, and the benefits gained. He suggests that conflicts can be related to differences in attitudes, values and objectives. From his point of view, these distinct points of view cannot be bridged unless a common interest arises that may jointly serve the two worlds, because in the industrial organisation, profit and organisational effectiveness is the name of the game, while in the universities it is excellence in research and in teaching.

Successful collaboration

In recent years, a common approach in much of the literature has been to try to identify factors which will increase the likelihood of achieving successful collaboration (Gray, 1985; Corsten, 1987; Huxham, 1993; Mattessich and Monsey, 1994; Quietness and Guy, 1995; Brockhoff and Teichert, 1995; winer, 1994).

At the same time, a tendency has been established to find out the reasons why some projects prove more successful than others. To encourage best practice and to promote debate, the ESRC (1994 c), based on a survey of 70 research teams, has published a new set of guidelines for all those involved in business-social science collaborative projects. The guidelines list the benefits for academia, business and host institutions in collaborative research, spelling out the main factors that contribute to success and explaining how to identify and overcome some common problems. According to the report of this study, twelve case studies were identified from a survey of seventy research groups, based on selection of ESRC funding modes, academic disciplines (including interdisciplinary work) and research settings, including teaching environments and independent research institutions. These cases were used to illustrate the differing elements of successful research partnerships. The most important aspect of successful collaboration has been realised as the existence of benefits for all parties in areas which are of value to them. The other factors have been discussed as the practical pointers to success which were illustrated in case studies. These factors have been categorised under the following headings: market awareness, business skills, quality and independence of the research, overcoming cultural difference, personal relationships, institutional policy, and fostering an entrepreneurial attitude. Practical steps for overcoming the potential problems and useful case examples have been briefly explained through the report. The success factors which have been set out in the findings of the study, show a considerable consensus with other studies on the subject. For example, the ESRC's report (1994) through one of the

twelve case studies identifies two main elements as the success factors for collaboration: a willingness of researchers to develop appropriate skills to communicate with business, and recognition of the differences between academic and business cultures leading to a flexible collaborative approach (Ibid. pg. 21). This result accords with the findings in the report by Corsten (1987) concerning the problems to effective collaboration between universities and enterprises mentioned earlier in this section.[2]

A consultant and research project manager who looks at the future relationship between industry and social sciences (Social Sciences, 1992) suggests:

> "...researchers will have to learn to work in joint teams with business professionals and managers, participating in what otherwise might be considered consulting interventions as part of this joint learning. {He adds that} researchers need to compromise to fit in with industrial practices if they are to continue to gain access. They will need to communicate results in a common language, namely plain English. Above all, they will need to develop two-way 'contracts' with their industrial partners where each gains something significant from the other." (Ibid. pg. 8).

Then, he concludes that social science research in management and business will therefore be much more successful than it is today. This attitude about an effective relationship between management academics and their industrial partner for doing research has been also proved by the data gathered for this study. The importance of a two-way communication is illuminated through the above statement.

A number of factors have been offered by Little and Leverick (1995) in their study on collaboration in product development joint ventures amongst UK information and communications technology firms, as being of particular importance for successful collaboration. These factors are grouped into six categories: (1) selecting a partner; (2) establishing the ground rules; (3) setting up a task force; (4) managing the process; (5) ensuring equality; and (6) maintaining an external focus. Little and Leverick (1995) refer to the variety of collaboration and suggest that collaboration increasingly dominates the industrial landscape. They refer to the broad range of several forms of collaboration ranging from joint ventures to marketing agreements which may involve customers as well as suppliers, with a variety of motives. How each of these factors can be applied to the research collaboration between

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[2]Lack of {universities'} interest in the problems of enterprises, lack of practicability, and communication difficulties were mentioned by 1055 enterprises in Corsten's study (1987) alongside the other problems in co-operating with universities.

management academics and practitioners is a matter of unanswered questions which need further investigation in future research. This notion is addressed in the final chapter of the present study.

Personal interaction and trust, considering the enterprise's concern and flexibility of co-operation have been emphasised in a study by Corsten (1987) when enterprises were asked about the factors they considered to be of particular importance for co-operation with universities. The factors of geographical proximity, low cost (cost-effectiveness) and the reasonable time spent on co-operation were reported respectively (Ibid. pg. 300, Table, 6).

Hakanson (1993) explores the influence of partner selection and the design of contracts and agreements on the chances for a collaborative R&D venture to 'succeed'. The results of his study show that prior contacts with prospective partners improve the chances that a co-operation will succeed. Such contacts help prevent difficulties due to differences in corporate culture, inadequate technical capabilities, incongruous strategic intentions, etc. These findings which are based on questionnaire data regarding 49 collaborative R&D ventures in four Nordic countries indicate that intensive prior contacts with a prospective partner and keeping the flexibility of agreements and contracts can improve the chance of success of this type of collaboration.

Mattessich and Monsey (1994) discuss the factors affecting the success of collaborations in general from eighteen papers they reviewed in detail. These factors have been grouped in six categories (environment, membership characteristics, process/structure, communication, purpose, and resources) as follows:

Environment

1 History of collaboration or co-operation in the community

2 Collaborative group seen as leader in the community

3 Political/social climate favourable

Membership characteristics

4 Mutual respect, understanding and trust

5 Appropriate cross-section of members

6 Members see collaboration as in their self interest

7 Ability to compromise

Process/structure

8 Members share a stake in both process and outcome

9 Multiple layers of decision making

10 Flexibility

11 Development of clear roles and policy guidelines

12 Adaptability

Communication

13 Open and frequent communication

14 Established informal and formal links

Purpose

15 Concrete, attainable goals and objectives

16 Shared vision

17 Unique purpose

Resources

18 Sufficient funds

19 Skilled convenor

The applicability of the above factors in the study of research collaboration between management academics and practitioners has been developed in the concluding discussion (chapter 9).

According to a study by the European Industrial Research Management Association (EIRMA, 1988) one prerequisite for a fruitful co-operation between university and industry is that both partners must have an interest as well an expertise in the subject. The benefit of the co-operation must also be clear to both partners and above all, commitment to the goals of the research must be shared.

Brockhoff and Teichert (1995) by addressing the question 'when are the cooperations to be considered successful?' argue that this question cannot be answered easily. Success is a concept with a multitude of facets, which makes it difficult to develop a measurement approach. Although their study is restricted to R&D cooperations between business firms and excludes co-operation with government laboratories, universities or non-profit organisations, it points out some general problems which measurement of success is confronted with. They have considered success in very broad terms, to be the degree to which objectives are met (or surpassed) by a specific organisational arrangement (the R&D co-operation) within a set of situational variables. Brockhoff and Teichert (1995) raise the question: 'what might the objectives for R&D co-operations be that constitute the yardsticks for success?' which leads to developing a list of possible objectives for R&D co-operation based on a qualitative meta-analysis of the relevant literature. Three groups of objectives were identified by their analysis: technological objectives, economic objectives, and people-related objectives.[3] The results of factor analysis on mentioned potential co-operation objectives indicates the importance of people-related objectives for partners in R&D co-operation. Trust creation, information networking, procedural learning, and learning to co-operate were among the highest mean importance of objectives for co-operation. Know-how transfer was also found in same ranking of importance from partners' point of view. The importance of *people-related* objectives and gaining access to partners' knowledge was also

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[3]Each group of objectives consists of different elements. Technological objectives include complementary, know-how, focus, and monitoring. Economic objectives consist of cost saving, time saving, uncertainty reduction, diversity, and internationalise. People-related objectives consist of information networking, procedural learning, trust creation, and learning co-operation. Data for this study were collected among partners of EC sponsored R&D co-operations (Brockhoff and Teichert, 1995).

revealed in the data collected for this study of collaboration between management academics and practitioners.

In summing up the above notions resulting from different studies in diverse contexts of working together, it can be said that in addition to the common factors which were discussed earlier, some other considerations should be taken into account to decide the success of collaboration between academics and practitioners in research. Who is supposed to judge the success of collaboration and with what objectives? What is the importance of the subject of research for both sides? What is the chosen methodology of research in the collaborative research project? What is the experience of academics and practitioners of working in collaboration with the other side? How can the barriers to collaboration which are originated by different cultures of academics and practitioners be reduced?

Section three

Definition of collaboration and inter-organisational collaboration

Definition of collaboration

The word 'collaboration' is derived from the Latin collaborate which means 'to labour together', 'to work jointly, especially with one or a limited number of others in a project involving composition or research to be jointly accredited (Webster's Third New International Dictionary, 1986). The process which stresses joint involvement in intellectual activities is another typical definition of collaboration (American Heritage Dictionary, 1983).

The essence of dictionary definitions of collaboration offers an element of working together of one or a limited number of others for achieving a common goal through their joint involvement in the process of collaboration, especially in intellectual and scientific work. But, the term 'collaboration' does not hold the same meaning when it is used in different contexts and different levels of working together.

In addition to the dictionary definitions of collaboration, there are some analytical definitions which have been developed through several studies in different contexts.

Wood and Gray (1991) argue about the importance of definition of collaboration for building up a general theory of collaboration.

> "A general theory of collaboration must begin with a definition of the phenomena that encompasses all observable forms and excludes irrelevant issues." (Ibid. pg. 143).

They refer to the results of their review through the nine articles on collaboration and attest that they found a welter of definitions, each having something to offer and none being entirely satisfactory by itself and they refer to seven definitions of collaboration which appear in these articles (Wood and Gray, 1991). Most of these definitions are originally based on Gray's (1989, pg. 1 and 5): "collaboration is a process of joint decision making among key stakeholders of a problem domain about the future of that domain" and "a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible". Some of these articles suggest extra characteristics to define 'collaboration'. Roberts

and Bradley (1991) develop a definition of collaboration which consists of five sociological elements: 1) transmutation purpose which includes shared, goal-directed activity among the participants to fashion a set of raw materials (objects, ideas, or social relations) into a developed product; 2) explicit and voluntary membership; 3) organisation; 4) interactive process, and 5) the final element which is a temporal property (time). Regarding these elements, the concept of collaboration is constructed by them as follows:

> "Collaboration is a temporary social arrangement in which two or more social actors work together toward a singular common end requiring the transmutation of materials, ideas, and/ or social relations to achieve that end." (Roberts and Bradley, 1991, pg. 212).

Regarding the elements which appeared in the majority of reviewed definitions by Wood and Gray, they have created the following revised definition of Gray's (1989, pg. 11) earlier definition:

> "Collaboration occurs when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms, and structures, to act or decide on issues related to that domain." (Wood and Gray, 1991, pg. 146).

Two other points that Wood and Gray conclude from their review through the nine research articles of inter-organisational collaboration are: first, the common agreement on the necessity of preconditions of collaboration, and the second the lack of knowledge about the process between preconditions and outcomes:

> "Only some of the theories can address the collaborative process; the others leap from preconditions to outcomes, leaving us with a 'Black box' to cover the area in between." (Ibid. pg. 143).

Gray and Wood (1991) note the limitations of organisational theories for studying theories of inter-organisational alliances. They suggest that the focus of theorising must shift from the individual organisation to the inter-organisational. They also suggest that the critical questions that theorists should ask at the inter-organisational level are different from those at the level of a single organisation. In this overview they (Wood and Gray, 1991) realise six theoretical perspectives which had been used for analysing the collaborative alliances by different authors. These theoretical perspectives are resource dependence, corporate social performance, corporate social performance/institutional economics, strategic management/social ecology, microeconomics, institutional/negotiated order, and political theory. They have discussed how the key research questions shift within each theoretical approach when the perspective changes from the level of a single

organisation to a 'domain' level. For example, if the question on the organisational level from the strategic management/social ecology theoretical perspective is: 'how can firms reduce threats and capitalise on opportunities within their environment?', it will change on the 'domain' level to: 'how do partners in an alliance regulate their behaviours so that collective gains are achieved?'. This shift from organisational level to 'domain' level from a resource dependence perspective changes the question of: 'how can environmental uncertainty be reduced without increasing dependence?' to the question of: 'when do stakeholders adopt collaborative alliances?'. The ways that these theories address three critical issues of collaboration - the preconditions that make collaboration possible and motivate stakeholders to participate, the process through which collaboration occurs, and the outcome of the collaboration - were also examined by Wood and Gray (1991).

Reviewing other related sources also seems to have something to offer for defining 'collaboration' and 'research collaboration'.

In the context of R&D, collaboration is usually concerned as a mechanism by which academic researchers might commercialise their outputs, a means of facilitating the transfer of academic research outputs to industry, or an opportunity for firms to gain access to the academics' expertise and research results.

Collaboration has been defined by Henneman et al. (1995) as a complex, sophisticated process which requires competencies, confidence and commitment on the part of all parties involved. Respect and trust, both for oneself and others, have been identified as a key to collaboration. They stress that patience, nurturance and time are required to build a relationship to the point where collaboration can occur.

In some respects, exchanging information, sharing resources, altering activities and enhancing the capacity of another for mutual benefit and to achieve a common purpose has been described as the ingredients of collaboration (Himmelman, 1992).

Bringing together the outcomes of existing literature indicates that collaboration means different things in different contexts, although most definitions have the essential element of 'working together' to produce a piece of work that is of interest to both sides of the collaboration. This study attempts to discern: 'what is the definition of collaboration between academics and practitioners in management research?'. The researcher has tried to fulfil this purpose through the analysis of data gathered for this study. The case studies of collaboration and the

supplementary interviews conducted in this research provide a basis for further discussion on the subject.

Although the context of research collaboration between academics and practitioners is a specific area of collaboration and different from inter-organisational collaboration alliances, the existing literature on the subject seems to have something to share with this study. The three substantial issues of collaboration - preconditions, process, and outcome - developed the researchers' discussion on data gathered for this study.

What can we learn from the results of mapping and review of the literature ?

1 It seems evident that a process of collaboration between university and industry is at work. The changing role of university research and its primary goal alongside the other shifts within the massification of higher education has led to the significance and growth of problem-oriented research.

2 In recent years, most of the governments have launched programmes and policies for promoting collaboration between university and the owners of the problems as users of their research. A necessity for more investigation about the mechanisms of this relationship and its actual performance have frequently been reported by relevant national and international organisations or individual researchers.

3 On the nature and process of research collaboration, it seems that relatively little work has been done, and more specifically on the research collaboration between university and industry in the social sciences in general, and management research in particular.

4 Where the relevant studies can be found, they tend to be from a particular discipline in science and engineering R&D or technology transfer, generally natural sciences. Inter-firm co-operation is another example of R&D collaboration. The existing literature in the wide range science and technology R&D collaboration between academics and industrialists can be used as a basis for developing the discussion on collaboration between academics and practitioners in management research.

5 There is a growing number of studies of inter-organisational collaboration which can be applied for analysing the process of research collaboration between academics in university and practitioners in industry.

6 Despite the age of the debate about the necessity of collaboration between university and industry, the majority of existing academic literature on collaboration has been created recently (1980s, and 1990s). In other words, as the publishing dates of the wide range reviewed selection of relevant literature shows, only in recent years can an increasing trend be seen of systematic discussion about this complex phenomenon.

7 There is not an identifiable theoretical base for analysing research collaboration between academics and practitioners, in general and in the social sciences in particular.

8 There is a wide diversity among different types of collaboration between university and industry, different terminology and so different definitions for research collaboration.

Implications for research

The main topics which came out from the mapping and review of the literature led to a framework of related themes to this study. Of course, while some of the research themes can be derived from mapping the literature, the relevance of other themes which came out later have yet to be explored. For example, as is clear from literature, there is a range of motivations for collaborating in research, both for academics and practitioners. In other words, it is apparent from existing literature that there are some determining features of collaboration, such as the existence of different motivations as a pre-condition to entering into collaboration, different expectations of both sides, the potential factors of conflict which may cause barriers to the success of collaboration, and the factors which are assumed to enhance the success.

Although not much attempt has generally been made to address the distinctive nature of collaboration between academics and practitioners within the context of research, some common issues resulted from the experience of other researchers on the related studies to the subject of collaboration. These issues shaped the general plan for data collection in this study and the framework of discussion on the different aspects of research collaboration between management academics and

practitioners, and also guided me in framing the interview questions. Other themes were brought up during the preliminary and supplementary interviews. Details about how the themes were operationalised into interview questions in different stages of research can be found in the next chapter.

The outcome of the literature review also provided a background to the subject of research which helped in accommodating the research questions to different interview contexts. For example, the review of historical background of the research system in the UK and its science policy in general, and the role and functions of the Economic and Social Research Council and its research policy on enhancing the involvement of different users of social science research in particular, provided a foundation for both interview questions with policy makers at the ESRC and also data analysis and discussion on the notion of involving non-academic users in social science research.

Moreover, the literature review shed light on some other aspects of this study which was helpful in both preparing supplementary questions for interview with academics and also developing discussions through data analysis. For example, debate about the changing role of the university and its research which stimulated an argument among academics concerning the changing status of academic knowledge, from a free good to a potentially saleable commodity and their responsibility as an academic researcher, or the notion of shifting the traditional relationships among industry, university, and government toward entrepreneurial relationships which made a better picture of emerging a new pattern of research in universities. These issues were raised by some of the academics whom I interviewed in this study.

The conclusion from the review of the literature led to the chosen design and strategy of research which is explained in next chapter. This strategy aimed to explore the perception of collaborators through what is happening in practice, in research collaboration between academics and practitioners.

A study of this kind not only can add to the stock of general knowledge in the area of collaboration between academics in university and practitioners in their organisations, but may be one of the first steps to studying research collaboration between management academics and non-academic users of their research through management research projects awarded by the ESRC.

CHAPTER 3
METHODOLOGY

In general terms, the methods, data and strategies chosen by the researcher are determined by a number of interrelated factors such as the nature of the research problem or topic, the availability and accessibility of data, and the researcher's available resources (e.g. funding, time, equipment and assistance). Each of these elements has an influence on the others. This notion has been discussed from different aspects through a wide range of literature on the subject of research design and research methodology (e.g., Bulmer, 1983; Hakim, 1987; Bryman, 1988; Layder, 1993; Robson, 1993; Dooley, 1995). Another factor which has been given great attention in many researchers' arguments, is the importance and role of selecting a paradigm[1] to design a study (Reason, 1981, 1994; Lincoln and Guba, 1985; Creswell, 1994). Quantitative and qualitative paradigms create two distinctive types of study (Phillips, 1987). The qualitative study is defined as an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting. Alternatively a quantitative study, consistent with the quantitative paradigm, is an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers and analysed with statistical procedures, in order to determine whether the predictive generalisations of the theory hold true (Creswell, 1994, PP. 1-2)

Choosing The Research Strategy

The general approach taken in an enquiry is commonly referred to as the research strategy. Research strategies have been classified in many different ways. One

[1]According to Kuhn (1970), a paradigm is a shared understanding or model that emerges in a scientific discipline that is used to guide research and teaching in that discipline. "Paradigms in the human and social sciences help us understand phenomena, they advance assumptions about the social world, how science should be conducted, and what constitutes legitimate problems, solutions, and criteria of 'proof'." (Firestone, 1978; Gioia and Pitre, 1990; Kuhn, 1970 cited in Creswell, 1994).

simple approach which is widely used distinguishes between three main strategies; experiments, surveys, and case studies (Robson, 1993).

Robson (1993) suggests that the purpose(s) may help in selecting the strategy. He discusses the hierarchical relationship between the three strategies, related to the purpose of the research: case studies are appropriate for exploratory work; surveys are appropriate for descriptive studies; and experiments are appropriate for explanatory studies.

This study is a qualitative exploratory research. It began with the general questions and not hypotheses. The main purpose of this study was exploring the perceptions of academics and practitioners of research collaboration, and to find out what was happening in the process of research collaboration between academics and non-academic participants who were working together. Seeking new insights in the subject of research collaboration in the social sciences in general and management research in particular was another purpose which made this study an exploratory research. So, a qualitative case study seemed to be an appropriate strategy. This strategy was chosen on the basis of its fitness to the qualitative paradigm of study and the research questions.

One of the chief reasons for conducting a qualitative study is that the study is exploratory; not much has been written about the topic or population being studied, and the researcher seeks to listen to informants and to build a picture based on their ideas (Creswell, 1994, pg. 21). Therefore, this study was not intended to test any hypothesis or to examine whole aspects of management research collaboration between academics and practitioners.

Hakim (1987) argues that qualitative research is concerned with individuals' own accounts of their attitudes, motivations and behaviour. She adds:

> "Although qualitative research is about people as the central unit of account, it is not about particular individuals per se, reports focus rather on the various patterns, or clusters, of attitudes and related behaviour that emerge from the interviews" (Ibid., pg. 26).

Qualitative research has been characterised by some assumptions in the literature of research design and methodology. For example, Merriam (1988) suggests six assumptions for qualitative research:

1. Qualitative researchers are concerned primarily with process, rather than outcomes or products.

2. Qualitative researchers are interested in meaning- how people make sense of their lives, experiences, and their structures of the world.

3. The qualitative researcher is the primary instrument for data collection and analysis. Data are mediated through this human instrument, rather than through inventories, questionnaires, or machines.

4. Qualitative research involves fieldwork. The researcher physically goes to the people, setting, site, or institution to observe or record behaviour in its natural setting.

5. Qualitative research is descriptive in that the researcher is interested in process, meaning, and understanding gained through words or pictures.

6. The process of qualitative research is inductive in that the researcher builds abstractions, concepts, hypotheses, and theories from details (pp. 19-20).

Taken together, these assumptions address several reasons why the qualitative design is more suited to this study rather than a quantitative one.

Research design

The focus and purpose of the study

This study is about the collaboration between management academics and practitioners in management research. The purpose of this research is to explore the perceptions of the academics and non-academics involved in collaborative research projects about effective processes of 'working together'.

Effective has been defined as having power to produce or the production of a desired result (The Wordsworth English Dictionary 1993), and process has been described as a series of events that produce change or development or a course of action undertaken (Ibid., pg. 404).

The ESRC has been counted as the authoritative body for implementing government's research policy in general and in the domain of social sciences in particular. So, the role of government in the research collaboration has been considered from a policy-making point of view. In other words, this study not only has tried to explore the perception of involved academics and practitioners in

management research collaboration in local level of special circumstances, but has also been interested in a wider picture and context at a meso or mediating level. This structural level of science and technology policy is located between macro, or national societal level and a micro or scientific/technological practitioner level (Jamison in Wad, 1988). ESRC is one of the mission-agencies in Great Britain and an agent in research policy making.

The assumption of this study for research collaboration was based on a close and two-way working relationship and interaction among academics and practitioners for conducting management research.

Understanding how different involved parties in research collaboration perceive the effectiveness of this process is important for any organisation which participates in this partnership and a useful tool for policy makers seeking to encourage and foster this phenomenon.

The grand tour research question

The question format in this qualitative study includes two forms: a main general question or in other words as Werner and Schoepfle (1987) coined it, a grand tour question, and five specific ones which follow this main research question. Miles and Huberman (1984) describe this type of question as a research sub-question. The main question of this study was: '*What are perceived to be effective processes in research collaboration between management academics in university and practitioners in their organisations*?'

The specific research questions

- What is the definition of research collaboration in management research from the academics' and practitioners' point of view?
- How do academics and practitioners enter the research collaboration?
- Why do they enter into research collaboration?

  -What are their motives for this collaboration?

  -What are their expectations of this collaboration?

- What are the factors contributing to success of academic and practitioner collaboration in management research?

- What are the factors which inhibit the effectiveness of academics and practitioners collaboration in management research?

The process of data collection

In a case study, the case is the situation, individual, group, organisation or whatever it is that we are interested in (Robson, 1993). *The proposed cases in this study were management research projects which were carried on in collaboration with practitioners, and had been funded by the ESRC's research grant scheme under the management and business studies discipline, at different universities around Britain.* Before data collection for fieldwork at the research sites, several steps were taken for selecting the cases which fit the other relevant elements of this study, e.g., the research approach, the aim and questions of research and the chosen strategy.

Reporting a detailed protocol for data collection has been strongly suggested in the literature (Yin, 1985; Creswell, 1994; Kirby and McKenna, 1989). The different steps taken during the process of data collection in this study have been reported in detail as follows:

First step

As mentioned earlier[2], the ESRC as a mission-oriented organisation within the UK's research organisation structure at the level of national policy making for research has supported the concept of collaboration between researchers and users of their research. It enhances the involvement of users of social science research in different levels of designing, managing and evaluating research. So, regarding the topic of this study: 'Involving non-academic users in social science research: collaboration between management academics and practitioners', the ESRC seemed to be one of the most relevant organisations for providing the information for this study.

The steps taken to gain access to the ESRC's data on projects awarded under the management and business studies discipline were as follows:

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[2]Chapter 2, pp. 17-24.

The ESRC research and publications database on computer was used for choosing the suitable cases for study. I chose to study this database under the management and business studies discipline. This database had been arranged in terms of award title, institution, award holder, reference, award dates, award amount, primary discipline and primary subject area. As mentioned before in chapter two, the ESRC funding procedure is usually based on responsive modes, and awards are paid to academics and not to departments.

It was decided that different projects should be categorised in terms of the primary subjects and then the suitable cases be chosen. However, after a preliminary analysis of the ESRC awarded research database in November 1993, I understood that this data source could not be helpful in choosing a suitable sample, because there was no way to find out about collaboration between academics and practitioners in these research projects. The result of this preliminary review showed that 99 out of the total 169 research projects awarded (58.7 percent), had been categorised under the discipline of management, 15 or 8.9 percent under economic, 11 or 6.5 percent sociology, 8 or 4.7 percent political and international relations, and 18 or 10.6 percent others (e.g. human geography, social anthropology, psychology, education, industrial sociology). The primary discipline of 18 or 10.6 percent of awarded research in this area was unspecified (Table 3.1). The primary subjects of the 169 awarded research projects had a broad and diverse spread as shown below (Table 3.2).

Table 3.1 The distribution of primary disciplines of the ESRC's awarded projects in Management and Business Studies.[3]

Primary discipline	Number of projects	Percentage
Management	99	58.7
Economic	15	8.9
Sociology	11	6.5
Political international relations	8	4.7
Others*	18	10.6
Unspecified	18	10.6
Total	**169**	**100.0**

* *e.g. Human geography, social anthropology, Psychology, education, industrial sociology*

[3]These data were categorised according to the ESRC's research and publications database in November 1993.

Table 3.2 The distribution of primary subjects of the ESRC's awarded projects in Management and Business Studies.

Primary subject	Number of projects	percentage
Employee management and relation	18	10.6
Marketing, sales and distribution	14	8.3
Management studies	13	7.7
Technology and innovation	9	5.3
Organisational studies	6	3.6
Accounting	6	3.6
Others	67	39.6
Unspecified	36	21.3
Total	**169**	**100.0**

Second step

At this stage I tried other sources to obtain more information about projects funded by the ESRC in management research. A meeting was arranged with the Secretary of the ESRC[4] in early 1994 which was very helpful. This interview not only proved the importance of the subject of my research for the purpose of policy making which seemed to be to the ESRC's interest, but also provided a better insight into the realm of the ESRC's activities and the possibilities of getting advice from the ESRC to select the suitable cases for this study.

Third step

With regard to the information which came out from taking the second step, I arranged to attend the ESRC's central office in Swindon. This stage consumed an unpredictable time which later caused a lot of extra work and more pressure during the limited time for doing a Ph.D. The slow progress of this step and its barriers will be described in detail, in order to show the real circumstances of selecting the research cases.

Two meetings were arranged with the head of the Management, Social Policy and Law Research Support Team in the central office of the ESRC in Swindon, one in May 1994 and the other in December of the same year. These meetings had a mixed nature of interviewing about the ESRC's research policy and also discussing the availability of required information for choosing the proposed management research

[4]At that time Mr William Solesbury was the Secretary of the ESRC.

projects. The interview questions had been designed in order to get an up to date insight into the ESRC's policy for research in general and management research in particular. During these sessions I mentioned the purpose of my study and the type of information required. This was a list of management research projects which had been awarded by the ESRC through its grant scheme. At first my preference was for a list consisting of completed research projects, in order that I could be have the published research reports. There were two assumptions. First, these reports could be used as a background information for reference during the interviews with involved academics and practitioners and raising questions relevant to the whole process of each project. Second, it would be more probable after the research was completed that both collaborators could draw a more comprehensive picture of the whole process from beginning to end. But during the search for this list, I understood that the tendency for research collaboration and its enhancement by the ESRC within the research grant scheme was a more recent one, particularly after the publication of the White Paper on Science, Engineering and Technology: 'Realising our Potential' in 1993. So, the data gathered through the interview at the ESRC suggested that I should consider the advantage of choosing ongoing research projects as well. Therefore, given that the average period of time for awarded projects by the ESRC is three years, I asked for a list of projects which included both completed and ongoing management research projects. Another criterion for these projects was that they had been done or were supposed to have been done with the collaboration of practitioners in industry. I waited for this list about seven months from May to December 1994 and followed up my request with several letters. So, for the second time I attended at the ESRC in Swindon to restate my enquiry and the required information for starting the fieldwork. Despite the co-operation of the head of the above mentioned team with my enquiries, this stage was one of the most time consuming periods in this research. However, the requested list was provided in January 1995. The main problem for this delay in providing such a list, in addition to the workload of the office and bureaucratic procedures, seemed to be the lack of information about the nature of the management research projects awarded in terms of collaborative examples. The information list about projects included: the research project's reference number, name of researcher and institution, title of research, grant amount and start and end dates of the projects.

Therefore, the cases were chosen from a list containing a total of 77 research projects awarded by the ESRC in management research during the period of 1991-

1995. Thirty-one out of the total 77 projects in this list were marked as the most probable examples of research collaboration between partners. Table 3.3 shows the distribution of the proposed 31 management research collaboration projects .

Table 3.3 The Management collaborative research projects in terms of start and end date.

Year	Start	End
1991	6	--
1992	2	--
1993	11	5
1994	11	2
1995	1	16
1996	--	5
1997	--	3
Total	**31**	**31**

These 31 projects were distributed among 24 universities around Britain. Some of the universities and academics held more than one research grant.

Fourth step

At this stage, after providing a list of the complete addresses of the award holders, a letter was sent to all of the principal researchers in these 31 ESRC-funded research projects (30 academics in 24 universities around the UK) and by referring to the ESRC list, I explained the main aims and questions of my research and asked their co-operation.

A total of 24 (80%) responses were received by letter, telephone and e-mail within two months, after one or two follow-up telephone calls for some of them.

At this stage, eleven of these academics pointed out that their research projects were not carrying on in the framework of collaboration between university and industry or government. Despite this point, all of them agreed to help me in my research or to see me for an interview. Five other academics had mentioned some reasons for not being able to help me in this respect. Reasons given to me for this refusal included: leaving for a full-time project or being at the very early stages of the research project. The following statements are a few samples of the responses to the letter had been sent to the 30 principal researchers of the ESRC-funded projects.

> "I would in principle be delighted to assist with your project but... and the project has not involved collaboration with industry in the way that you

describe. We have collected firm level data by questionnaire and there has been no collaboration other than some firms choosing to complete our questionnaire" (one of the principal researchers).

" ... the ESRC project we are working on has only just started and so it would not be possible to interview those industrial partners involved in our project because the outputs from our research are not yet available to them" (one of the principal researchers).

"...I was most interested to read about your research which sounds well constructed, imaginative and policy relevant. However, I fear that you have not been correctly informed about the nature of our project... Moreover, while we are certainly keen to inform government and business of our research, there is no element of what I think could be described as 'collaboration' with representatives either. We are a university-based research team undertaking interview fieldwork in the North and South of England with 'micro' business (i.e., consisting of 10 people or fewer). We have no non-academic collaborators or partners." (a full-time research associate in one of the ESRC-funded projects).

"...I am currently on leave working full-time on an ALCD project and cannot at this stage see anyway to having time to see you." (one of the principal researchers).

At this stage, after spending 8 months waiting the list of proposed research projects from the ESRC and about two months getting the responses of the 30 principal academics for their confirmation to co-operate in this study, it seemed that the actual picture of the marked projects in the list was different from what was supposed to be. Although this result limited my choices for doing fieldwork, it seemed to be a considerable primary finding. In other words, despite the emphasis of the ESRC for encouraging research collaboration and making the potential users of research in industry, business and commerce get involved in the process of research, this result showed that this involvement had rarely happened in practice.

Fifth step

Concerning the strategy of this research, the fundamental research design had been planned to interview the main involved academics and practitioners in 8-10 management collaborative research projects. The researcher preferred to choose these projects from a different range of situations so as to increase the possibility of comparing the results. These criteria for choosing the 8-10 projects from the total 31 proposed cases (the first assumption was that all of the marked projects by the ESRC are collaborative management research projects) had been decided in terms of the closer working relationships between academics and practitioners from the first stages of working on research projects, the size of management departments (small,

medium and large), the diversity of the project's primary subjects, the award amount, the starting and ending date of research projects and the differences among user communities such as the public, private or community sector, the size of their organisations and the type and complexity of goods or services which they produced. The main aim in considering these criteria was studying a wider range of the potential cases and the possibility for comparing the answers to research questions in different circumstances. Why was this plan adjusted in the later steps of research?

Why these cases?

So, the given results of the preparation stage for fieldwork implied that the planned design for selecting the cases could not be completely carried out. Therefore, I decided to put more focus on the texture of all the remaining cases. Moreover, at this stage the 8 principal researchers of these cases did not show any disagreement about the nature of their research as a sample for research collaboration. So, these researchers were contacted again by telephone, e-mail or letter until the interview appointments were made.

The characteristics of the research projects were as follows:

Characteristics of the sample research projects

University	principal researcher	period of study
A	Professor A	Jan. 95 -Dec. 96
B1	Professor B	Nov. 91-Nov. 93
B2	Professor B	Apr. 94-Mar. 96
C	Professor C	Jun. 93-May. 95
D	Professor D	Oct. 94-Dec. 95
E	Professor E	Oct. 93-Sep. 95
F	Dr. F*	Dec. 94-Nov. 95
G	Professor G	Jun. 93-Jun. 96
H	Dr. H	Jan. 91-Jun. 93

* *Now a professor.*

At first glance these cases seemed suitable for the purpose of the research and the criteria which had been identified for selecting the cases. At the period of my fieldwork - from March 1995 through December of the same year - two of these projects had been completed (B1 and H), one near to end (C), three of them at the second half of the period of study (B2, E, and G) and the three remaining ones at

the early stages of the project (A, D, and F). All had been awarded by the ESRC under the management and business studies discipline. These cases had been or were being carried out at eight different universities around Britain and by well-known experienced academic researchers (one of the researchers was responsible for two projects, according to the ESRC list of projects awarded).

These cases were a combination of completed and ongoing research projects. But still there was one more criterion - the existence of collaboration between academics and practitioners in carrying out the research which was essential for exploring the answer to the research questions.

All of the principal researchers agreed to participate in my research, and at least at that stage, none of them announced that their research projects were non-collaborative or there were any other problem in co-operating with my research. These academics were established in 6 management departments (4 around England and 2 in Scotland), The London School of Economics & Political Sciences and one department of University College London (UCL).

Interview

A total of 26 interviews were carried out in this research through five different stages with different purposes:

First, providing background information on the subject of research by interviewing three well-known academics in different management departments around England and Scotland. Two other interviews were conducted with the ESRC experts and policy makers. These interviews aimed to ask their advice on the different aspects of the research subject in general, and the ESRC's policy about involving non-academic users in social science research in particular.

Second, two interviews were conducted for the pilot study of the interview questions. This was in terms of examining the applicability of the planned procedure for addressing the research questions and gaining the necessary information at the fieldwork stage. The results of this stage led to some adjustments in the primary design, such as making changes in the order of some questions for academics and practitioners, different wording of questions considering the need for providing flexibility of interview. These adjustments were made in order to let the maximum information about the scope of research be gained. For example, the direct question about the definition of research collaboration was mainly asked

from academics in case studies because it was not a familiar term for practitioners and made them confused. Moreover, the theoretical aspects of questions were not of interest to them. So, regarding each occasion of interview with practitioners in case studies, an effort was made to find out their perception of involvement in that specific case study by replacing the question of 'How do you define research collaboration between management academics and practitioners?' by asking an indirect question of 'why do you think that this project with academics is a collaborative one?'.

Third, fieldwork interviews with the principal researchers of the ESRC-awarded projects and the practitioners who have been involved in working on these projects. At this stage, I came across two types of projects:

(I) those in which I could interview both sides (academic researchers and practitioners, three researchers and four practitioners); and

(II) those whose practitioners were not available and interviews were carried out only with the main researcher of these projects (five researchers).

Despite my informative letter to the main researchers (in addition to personal call for arranging the interview) which included the aim and questions of my research and the information which I was looking for, at the interview session five of them explained that they had not had a close collaboration with practitioners in carrying out those projects and their relationship had only been in getting access to information by sending questionnaires or getting permission to conduct research interviews, and nothing more. So, they could not introduce to me a particular person as a collaborator practitioner whom I could interview.

> "...managers involved in our study were merely 'subjects' in our studies, we did have to gain access to companies to interview managers, and we did offer them 'executive summaries' of our findings, in this sense we needed co-operation from the companies ...but I don't really think you would call it collaborative since the companies weren't actively involved and we didn't put the proposal together jointly." (a co-researcher on the ESRC-funded project. This was a completed one).

Two of these academics were in very early stages of their research and they did not have a clear idea about their collaborators, but they believed that their projects were a kind of collaborative research.

> "...Our research is at an early stage and the research sites are not yet ready for another investigator to visit" (a principal researcher of the ESRC-funded project, this was one of the eight approached projects for case studies)

and when this request was followed up a few months later, I received this reply :

> "... in terms of access to the research sites my colleagues share my feeling that at the moment we cannot give you access to the sites, because anything which puts extra pressure of time on our research participants is likely to decrease the quality of our own access to our data" (the principal researcher whom I interviewed during my study, but the access to the involved practitioners in this project did not become available until the end of my fieldwork).

These projects were not followed up until several months later to find an opportunity to interview the practitioners involved. This attempt did not result in access, and the time constraints of the PhD programme did not permit me to go back to them at the appropriate time. So, 11 interviews carried out at this stage with 9 researchers and 4 practitioners (in one session the co-researcher of the project accompanied the principal researcher for answering my questions and in another session of interview, two practitioners who both were actively involved in the process of research collaboration answered the research questions).

Fourth, complementary interviews with academics in the management departments for increasing the validity and reliability of the research. Seven interviews were conducted with this purpose during the fieldwork and after that.

Fifth, follow-up interviews for finding out the likely changes in the attitudes and answers of interviewees during the time of the ongoing research project which they had been involved in. The other purpose of this interview was examining the validity of data since the first interview and filling in the probable information gaps. The interview at this stage was carried out only in one of the three cases and with two practitioners who had been interviewed before. The reason for selecting this case was the close working relationship between academics and practitioners from the first stage of this research project. So, it was assumed that they would be able to provide more appropriate information about the changes during the process of collaboration.

All formal face-to-face interviews except two of the supplementary interviews and one of the first stage ones which I took notes from the main focuses of answers to the research questions, were audio-taped after seeking permission of respondents.

This made it easier for me to listen to the interviews actively. These interviews were carried out in the interviewees' workplaces[5], and this needed me to travel around the country.[6] Other discussions and meetings which occurred during my attendance at different seminars or related workshops happened informally and only some notes were taken.

Average time for each interview with academics and practitioners was one and a half hours. This time was longer for three cases which I could interview with both parties of each research project. All of the audio-taped interviews were fully transcribed. Other stages' interviews lasted for one to one and half hours.

Interview procedure

According to the purposes of different interviews in this study which were explained earlier, different procedures were applied in the interviews of each stage.

Although the main focus of all interviews was on exploring the interviewees' perception of research collaboration, the interview questions were tailored to the purpose of each stage. For example, in case studies, field work was started by interviewing the main academic researcher of the chosen cases, and thereafter, interviewing the practitioner(s) of the same project.

At the beginning of each interview with the academics of case studies, a short explanation of the questions and aims of the research was given as a reminder to the summary letter which had been sent to them in advance. Some specific research questions had been provided which I wished to put to each respondent (Appendix 1-A), but the remaining part of the interview was intended to be open enough to allow for the respondents to tell their own experiences of the case of research collaboration. In other words, the case studies interviews were based on a semi-structured questionnaire with the aim of gaining a better understanding of the process of research collaboration between academics and practitioners in each case. The structure of questions was formed around the main themes of research. These

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[5] Except one interview that was carried out by e-mail with the co-researcher based on the principal researcher's suggestion who was abroad at the time of my fieldwork, and one of the first stage interviews that was arranged by the academic during his stay in Edinburgh.

[6] Regarding the different interview appointments and availability of respondents in their convenient time, the arrangement of these journeys caused its own special problems.

questions were derived initially from the literature review in chapter two and also the interviews which were carried out with leading management academics, in advance of the case studies.

The areas covered may be categorised within the main themes of research as follows: definition, origin of collaboration, motivation for entering into collaboration and the process of 'working together' which itself includes the themes underlying the involvement of academics and practitioners in each case. For example, a range of questions used as an attempt to explore the nature of relationships, communication, barriers which were experienced, and expectations of collaborators in case studies (cf. Appendix 1-A). Concerning the diversity of cases in this study, in each occasion, the responses of interviewees (especially in the case of practitioners) led to some new themes which needed different complementary and prompt questions to pursue the interview. One of the examples was the comparison between using consultancy and academic research by practitioners in responding to the problem of working with academics on research projects which raised the prompt question about the reasons for managers' preference for consultancy services rather than involving themselves in research collaboration with academics.

Collaborators of each case were also asked about the problems in working with each other during the process of collaboration and the ways by which they overcame those problems. One example is the academics' reference to the higher possibility of research collaboration in the natural sciences rather than social sciences in responding to the question of definition of research collaboration between management academics and practitioners. This point was followed by asking a question about the reasons for this distinction from their point of view.

The guideline which was used for conducting supplementary interviews with academics, again included the main themes of research in a general framework rather than referring to the specific project (cf. Appendix 1-B). These questions were mainly used for other stages' interviews in this study as well.

With regard to the research plan for access to the involved practitioners in case studies, main researchers were asked to introduce the organisations and main practitioners who had been involved as a research collaborator in these projects. The criterion for choosing the organisation(s) and involved practitioner(s) was the higher degree of their involvement in these research projects.

In practice, only in the three cases in which the principal researchers confirmed that their projects had been collaborative did this plan work. These academics preferred to introduce one or two names which they believed could be of most help for the purpose of my research. According to our agreement, they accepted to give my name to the collaborator practitioner(s) of their research and I personally got in touch with them until an appointment for interview was made. It was my task to explain the questions and purposes of the research to this group. As mentioned before, the aim of this research was to explore the perception of involved management academics and practitioners in the research collaboration about the effective processes of working together. As the priority for collecting data was the texture of the relationship between academics and practitioners during the period of research, the academic researchers were asked to introduce the most deeply involved practitioner(s) in the project in order to gain a better insight into the process of research collaboration. Therefore, as it showed during the stage of data collection in this study, the example cases were the most informative samples among the others that permitted to gain information from both academics and practitioners and to precede the research questions. What types of research collaboration are these three cases?

Case 'A' is a research project which was carrying on in university with the co-operation of different companies. The interview was conducted with the principal academic in a management department and with the practitioner collaborator in the central office of a multi-national food industry company, in two different cities in Scotland and England. This practitioner was introduced by the academic as the most involved person among the other collaborator practitioners in his project at that moment.

Case 'B' is a different type of research collaboration between academics and practitioners; a university-based financial forum. The interview was conducted with the academic who was the director of this forum, and one of the practitioners who was from one of the member companies and the member of this forum's steering committee as well. This company was working in the insurance industry. There were different reasons for choosing this case. First, the director of this forum was one of the principal researchers of the three remaining ESRC-funded management research which had been approached for case studies. Second, he was an experienced and well-known academic who had different experiences of being involved with both ESRC's different initiatives and of working in collaboration with practitioners through different frameworks (this was the information which I obtained at the

beginning of my interview and according to my knowledge of studying some of his papers in academic journals). The third and the main reason that I replaced the ESRC-funded research project with the case of research collaboration within the Forum framework was that the academic researcher emphasised that in the ESRC-funded project which I had intended to study as a potential case for this research there had not been any collaboration as involving the practitioners in research project except their co-operation in filling the research questionnaires, a standard way of access for gaining information. At this stage, there were two options to be decided on: one choice could be to omit this case and to content myself with conducting the interview only with the academic researcher in this case, and analysing his views alongside the other five interviews with academic researchers whose practitioner collaborators were not available for interview.[7] Another option was to replace this case with one of the ongoing successful (based on the academic's judgement) collaborations of the academic researcher with practitioners in order to gain more information about the process of this collaboration. There seemed to be two advantages for choosing this latter option. One, getting an opportunity to obtain information in a different context of collaboration, and another advantage was the possibility of developing the discussion on findings of this study. In addition, this decision did not mean any changes in the purpose and questions of the study. Yin (1985) discusses the circumstances of keeping the flexibility of case study design and suggests that: "The point is, the flexibility of case study designs is in selecting cases different from those initially identified (with appropriate documentation of this shift) but not in changing the purpose or objectives of the study to suit the case(s) that were found." (Yin, 1985, pg. 54).

Case 'C' is a management research project which was being carried out with the collaboration of management academics, and practitioners from a community-based organisation. The principal researcher and two of involved practitioners in this research project were interviewed in their workplaces.

The interview with practitioners was also a semi-structured one. The main topics and questions which were put to them were a referral of the same questions which were raised in interview with academic researchers regarding the three main phases of their involvement in each research project. We can picture these phases as those of: coming together, working together, and gaining together (cf. Appendix 1-A). In

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[7] The reasons for this limitation were also explained earlier in this chapter, pp. 61-62.

each interview with practitioners, a few questions were also raised about the background of the practitioner's organisation, its main activities, the nature of in-house research activities in that organisation and the position of the interviewee within the organisational structure. Concerning their answers to these questions, some prompt questions were raised, for instance, when one of the practitioners mentioned that he was a research manager and his responsibilities were mainly research and business information studies, the prompt question was then, 'it means that you have a research group here, could you please give more information about this group and its activities?'. This question aimed to explore the relevance of the nature of in-house research within the practitioner's organisation and his interest in collaboration with management academics in the university. One of the issues which also demanded more prompt questions during interview with practitioners was related to their notions about difficulty of working with academics on research subjects from one side, and at the same time referring to the opportunity of learning from the process of research collaboration with academics, from the other side. In each case, a few questions were raised to learn more about their experience of barriers which made collaboration with academics problematic for them, how they overcame these problems and what they got from this collaboration. One more attempt was made to examine the collaborator practitioners' perception of learning through their involvement in collaboration by asking the following question: 'can you compare your expectations at the beginning of your involvement in this process and now?' (cf. Appendix 1-A).

It is worth noting that in addition to conducting the interviews, a copy of research proposals of the ESRC-funded research projects were requested from academic researchers in order to gain a better insight of the projects' focuses, aims and methodologies. This document was either provided during the interview session or was posted to me by the academics, sometime later.

Managing the data and data analysis procedure

There is an extensive literature on the procedure for analysing qualitative data (Yin, 1985; Tesch, 1990; Kirby and McKenna, 1989; Creswell, 1994; Bogdan and Biklen, 1992; Marshall and Rossman, 1989; Miles and Huberman, 1984). Manipulating qualitative data during analysis is an eclectic activity; there is no 'right way' (Tesch, 1990, pg. 96). Tesch has recognised twenty-six different approaches to qualitative research which have been categorised into four basic qualitative research groups: those which address the characteristics of language, the discoveries of regularities,

the comprehension of meaning of text/action, and reflection. Each of these groups leads to different ways of handling qualitative data. The notion of data reduction and its complexity through different phases of data analysis has been the focus of qualitative research literature. Marshall and Rossman (1995) have argued about the different data analysis strategies and have described them as ìthe process of bringing order, structure and meaning to the mass of qualitative collected data; it is a messy, ambiguous, time-consuming, creative and fascinating process." (Ibid., Pg. 111). Tesch (1990) discusses the concepts of 'decontextualisation' and 'recontextualisation' for the process of 'segmenting' and 'categorising' in data analysis. Although she has made a distinction between descriptive/interpretative analysis and theory-building analysis in regard to the concepts of 'decontextualisatin' and 'recontextualisation' , the basic procedure is the same. As Tesch (1990) points out, the result of the analysis is some type of higher-level synthesis: "while much work in the analysis process consists of 'taking apart' (for instance, into smaller pieces), the final goal is the emergence of a larger, consolidated picture." (Ibid., pg. 97).

The procedure of data analysis in this study has been based on the qualitative research strategy which was discussed earlier in this chapter. How were different steps of this procedure completed? The first step was organising the collected data. For this purpose, I read all of the interview's transcriptions and the field notes carefully. It is worth noting that I had listened to interview tapes immediately after the interviews, before transcribing them later. This was helpful for at least two reasons. One, checking the quality of recording and its clarity which helped me to take notes from unclear parts of the recordings as much as possible while I had a fresh memory of the interview. The other advantage was not only getting a first sense of each interview, but also completing the field notes. The second stage was going back to interview transcripts and field notes again, and reading them with a more specific purpose for categorising and coding. At this stage, the specific questions of this research were chosen for bringing the similar parts of each interview under the same topics. So, through reading the text of each interview, related segments were brought under the same question. This process was repeated for academics and practitioners in each case separately in order to provide the opportunity for comparing their responses for the purpose of answering the main question of this study. During this segmenting, it was realised that in addition to the parts of each case which were related to the major questions of research, there was some information unique to each case. For example, the type of chosen research

methodology for that research project, explanation of practitioners or academics about their general research interests or their educational and professional background. Moreover, in some part, the interviews' texts included general statements. These parts were the result of respondents' reflection on the questions which had been raised during the interview. These subjects were in addition to the main research questions and came out regarding the process of each interview and included the main focus and stronger emphasis of respondents on particular points, for instance the discussion about the differences between research collaboration in social sciences and natural sciences or the preference of managers for consultancy over academic research for solving their problems. These types of information were mostly included in the texts of academics' interviews.

In other examples, the experience of academics regarding their involvement in different schemes or research activities had raised some additional questions: for instance, one of the academics was strongly involved in the Teaching Company Scheme which is one of the government's initiatives for encouraging collaboration between university and industry, so his focus was mainly on this Scheme. So, both types of discussed additional information on unique or general aspects to the major part of data were categorised under two different sets of codes. Then, the major topics of data went under two different clusters: the data collected from interviews in the three cases where both involved academics and practitioners had been interviewed, and a cluster which was related to the data resulted from interview with the principal researchers in the other five ESRC-awarded management research projects. Before cutting out segments in each case and pasting them into the similar category, the cases were numbered in order to recognise where the data came from.

The other stage's interviews were filed in different folders in terms of their diverse purposes. These texts consisted of more general information about the nature of research collaboration between university and industry, and some examples of academics' experiences of working with practitioners in business and industry. So, at this stage, these data were marked and filed in the folder of supplementary interviews for their use in the context of data analysis.

The process of presenting the data

The next step was making a decision on the process of presenting the data. Marshall and Rossman (1989) suggest three activities that the process of data analysis would entail: data reduction, data display, and conclusion

drawing/verification which would proceed in parallel during the research project or with precedence of any one over the others at various times. The main focus of data analysis in this study was on the data collected from interviews with academics and practitioners who were involved in research collaboration in the three cases. This was because of the aim and the main question of this research and the importance of addressing the answers of both sides of the collaboration to the research questions. There were different alternatives for presenting this main part of data. First, bringing all the categorised information from these cases under the main themes of research as separate chapters or sections of the thesis, without presenting any one case as a single case. In other words, the whole report would be a cross-case analysis. The second option was to present each case separately in a narrative, as in a classic single case-study while adding a chapter of cross-case analysis, and the third alternative was to present all the questions and answers of the interview in each case as different chapters and then developing a cross-case analysis regarding the main focus of study.

At this stage, after the phase of data reduction, all of the organised research materials were reviewed again and with regard to the texture of collected data and the research questions, the final decision for the format of presenting the data was made. The case studies are presented in three separate chapters. Each case report comprises of both involved academic and practitioner/s answers to research questions, and begins with general information about the research sites and a brief explanation about the research project. This part of the data is based on the information provided by academics and practitioners in response to my questions in these regards. The written documents about the activities of involved organisations, and the research proposals of these projects which had been submitted to the ESRC were also used for this purpose. The next part of each case report holds the data gathered from interviews with collaborator practitioner/s of each project about the process of their collaboration with academics during the life of the research project until the time of interview, and follows with the relevant information provided by the principal researcher of the same project. The main topics for presenting and analysing the data were chosen in the first instance in relation to the research questions and then, regarding the focus and emphasis of each practitioner and academic. These focuses formed the new aspects of research collaboration between academics and practitioners in this study.

The common topics for presenting the data throughout the case studies include: 'what does the research collaboration mean?, 'how and why did they come

together?', 'the barriers to research collaboration', and 'the characteristics of successful research collaboration'. The new aspects of the process of research collaboration between academics and practitioners which were illuminated during the process of data analysis created other topics such as: 'learning process', 'preference for consultancy to management research collaboration' 'training rather than research', and 'the mechanisms of communication'. So, the report of each case is not just the format of question and answers, and the explanation and comments on quoted statements have been developed and discussed by the researcher within the main focus of research.

For the purpose of the anonymity of the studied cases and persons interviewed, fictional names have been used in order to protect the confidentiality of the interviews with academics and practitioners. Each case has been identified by alphabetic letters and the titles of Collaborator Practitioner (CP) and Principal Researcher (PR) have been used within the cases for the references of quotes[8].

The gathered data from 20 supplementary interviews were used for analysis in terms of the more common themes which had been raised in replying to research questions (cf. Appendix 1-B) during the sessions of semi-structured interviews. The findings of this data were analysed in a separate chapter (chapter 4) prior to case studies as the preliminary discussion on the subject of research collaboration.

Discussion and development of ideas

This study leads to a concluding discussion chapter. The structure and contents of this chapter were planned regarding the nature of the research subject and the gathered data. In other words, although this final chapter draws conclusions from the whole study, it discusses different aspects of findings in a questioning framework within two separate sections:

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[8] The studied cases were named by alphabetic letters 'A', 'B', and 'C'. It is worth noting that these letters are different from the same letters which used for the name of universities and academics earlier in this chapter. In other words, by case 'A', it does not mean the project carried out in university 'A' (p. 61). Of course, within each of the three cases, all of the related information, same as the Principle Researcher, Collaborator Practitioner, the name of university and the collaborator organisation have been signified with the chosen letter for each case, e.g. Principal Researcher of case 'A' by 'PRA' or Collaborative Practitioner by 'CPA', and also the same procedure was applied for cases 'B' and 'C'.

1. specific research questions;

2. questions beyond the specific research questions.

These questions were raised in different levels.

Five levels of questions have been suggested by Yin (1985)

Level 1: questions asked of specific interviewees;

Level 2: questions asked of the individual case (there are the questions in the cases study protocol);

Level 3: questions asked of the findings across multiple cases:

Level 4: questions asked of an entire study- for example, calling on information beyond the multiple cases and including other literature that may have been reviewed; and

Level 5: normative questions about policy recommendations and conclusions, going beyond the narrow scope of the study (Yin, 1985, pg. 72).

The concluding discussion in this study includes mostly a combination of questions of levels 3, 4 and 5.

Yin (1985) suggests two dominant modes of analysis for case-study: pattern-matching and explanation-building. The former refers to comparing an empirically based pattern with a predicted one (or with several alternative predictions), and the latter is a more difficult procedure than the former one and is mainly relevant to explanatory case studies in which the case-study data are analysed by building an explanation about the case. When it comes to exploratory case-studies, it has been discussed as a part of a hypothesis-generating process with the goal of developing ideas for further study, rather than to conclude a study (Yin, 1985).

This study makes no effort to conclude the research by generalising the findings of each case to all situations of research collaboration between academics and practitioners, although it gives a general account of each case of collaboration. The goal of the analysis in current research is to disseminate the findings resulting from this research through a theoretical discussion that leads to developing appropriate ideas for further studies in future. The main reason for choosing this framework for

developing the analysis was the insufficient theoretical background on the subject of research collaboration between academics and practitioners.

Validity and reliability

The logic of research design , the truthfulness and consistency of its findings have long been discussed through a copious literature and considered as the necessary evidence to judge scientific research in both quantitative and qualitative aspects. This argument seems more complex in qualitative research in which measurement is not as straightforward as quantitative studies. 'Reliability' has been defined as the extent to which a measurement procedure yields the same answer however and whenever it is carried out, and 'validity' as the extent to which it gives the correct answer (Kirk and Miller, 1986, pg. 19).

Different criteria and tests have been proposed for the purpose of judging the validity and reliability of qualitative research. Yin (1985) suggests four common tests for validity as: construct validity, internal validity, external validity, and reliability. He develops his discussion by identifying different tactics for dealing with these tests in case studies, for example, using multiple sources of evidence by establishing chains of evidence in the phase of data collection for the purpose of construct validity. Lincoln and Guba (1985, pp. 290-301) propose 'trustworthiness' as a criterion to judge the quality of research. Four questions about 'truth value', 'applicability', 'consistency' and 'neutrality' have been suggested to be helpful to judge 'trustworthiness'. They offer a list of four alternative operational terms which they find more appropriate for qualitative inquiry. These criteria are: 'credibility', 'transferability', 'dependability', and ' confirmability'. These terms have been suggested as equivalents for the conventional terms, 'internal validity', 'external validity', 'reliability', and 'objectivity'. The goal of credibility is to demonstrate that the enquiry was carried out in a way which ensures that the subject of the enquiry was accurately identified and described (Robson, 1993, pg. 405). Transferability which is analogous to external validity or generalisability is not the same in 'conventionalists' and 'naturalists' studies. Lincoln and Guba (1985) point out that the naturalist researcher can prepare only the thick description necessary to enable the next investigator to judge on transferability of findings. The applicability of one set of findings to another context has been referred to as a second decision span in literature (Kennedy, 1979, in Marshall and Rossman, 1989). The first decision span has been discussed as a situation in which the first researcher can generalise the

finding from a selected sample to the population from which that sample was drawn.

Marshall and Rossman (1989) emphasise the need for full detail of the theoretical parameters and framework on which the study is based. They suggest that by doing so, the other investigators and policy makers are able to make a decision about the transferability of the described case(s) to the new research policy and using them in other settings. Dependability and confirmability are corresponding concepts to reliability and objectivity. The relationship between credibility and dependability is similar to that between validity and reliability. In other words, just as a study that is shown to be valid is also reliable, it has been argued that a study that is credible must be dependable. Lincoln and Guba (1985) suggest the confirmability audit which is the examining of the product of research - the data, findings, interpretations and recommendations. Robson (1993) raises a question to judge the confirmability of a qualitative research: "Have we been told enough about the study not only to judge the adequacy of the process, but also to assess whether the findings flow from the data?".

Taking all the above notions about validity and reliability of a qualitative research together, the researcher has attempted in different ways to enhance the validity and reliability of the findings of this study. The technique of triangulation has been suggested as a way of increasing the validity of both qualitative and quantitative research (Denzin, 1978; Jick, 1979; Hami, 1996). Four different modes of triangulation have been recognised by Denzin: the application of multiple and different 'sources', 'methods', 'investigators', and 'theories'. The different sources of information in this study- interview with both academics and practitioners who were involved in each research project, supplementary interviews with academics and policy-makers through different stages of research, and also the follow-up interview - all can contribute to the credibility of gathered data. Moreover, a copy of research proposals of the projects which were gained from academic researchers was another source to get related information. From the other side, this study attempts to provide a step by step description of the process of research. So, according to Lincoln and Guba (1985), it can enable the next investigator to judge on validity and transferability of findings. The experience of follow-up interviews with two previously interviewed practitioners, more than one year from the initial interview, showed the validity and consistency of research questions by receiving consistent answers.

CHAPTER 4
PRELIMINARY DISCUSSION

This chapter attempts to develop a preliminary discussion of the subject of research on the basis of analysis of supplementary data gathered throughout the course of fieldwork in this study. Collaboration means different things in different contexts, and research collaboration between academia and the 'outside world' seems to be one of the most complex types of collaboration. The two different worlds of academics and practitioners, their different values, goals and expectations for involving in research activities make it far from a simple and easy relationship. To discuss these issues this chapter is organised into two parts. The first section briefly covers the analysis of findings from 20 complementary interviews undertaken in the course of fieldwork, in addition to case studies. These interviews which were carried out through different stages of research, not only enriched the results of study, but also provided it with a more comprehensive perspective of different aspects of the research collaboration. The second part, includes the development of discussion within the wider literature in the related areas.

In considering the policy context of issues raised through this study, a brief reference to the background discussion may be relevant.

Policy context and research collaboration

As we saw in chapter two, one of the turning points in the UK's research system was adopting the 'customer-contractor' principle which was recommended by Lord Rothschild as a result of a complete review of Government R&D. This provided a basis for re-organisation and management of government sponsored R&D within the Government White Paper of 1971. The Social Science Research Council (since 1984 Economic and Social Research Council which was one of the last research councils which established within the UK's research policy in 1965) was exempted from adaptation to the 'customer-contractor' principle because it was very small at that time. Blume(1982) refers to another point of difficulty of applying the 'customer-contractor' principle for social sciences in terms of its complex nature by which

showing utility for a specific customer within a short-term perspective is not common.

The other events in the context of the UK's research policy which are more relevant to our study include:

The increasing focus on the subject of industry-PSR (Public Sector Research) linkage by Government in the1980s. This was the result of the Government's policy since 1979 on minimising its intervention in the UK Government policy for public sector research. As discussed before in chapter two, several reports were published during this period which showed two contrasting approaches towards the industry-PSR linkage. One group encourages universities towards more engagement in applied research without referring to the potential problems of this practice, and another group comprises the reports that consider different limitations within the exercise of this policy.

The White Paper of 1991 by which former polytechnics (new universities) and Old universities came into direct competition in terms of winning the research funds from Funding Councils was another change in the UK's research system. The vast gap in research performance between these two groups of institutes was proved by the outcome of the 1992 Research Assessment Exercises (RAEs).

Another turning point in the UK's research policy is the 1993 White Paper, *Realising Our Potential: A Strategy for Science, Engineering, and Technology*. The essence of this change is the strong emphasis on 'better communication, interaction and mutual understanding between the scientific community, industry and Government departments' (Cabinet Office, pg. 5). The 'closer and more systematic contact with those responsible for industrial and commercial decisions' is recommended as a key for achieving the aims of the UK's research policy (Ibid., pg. 4). The importance of building networks of interactions within an interactive model instead of a linear model has been pointed out as another shift in recent research policy (Faulkner and Senker, 1995). Following this shift, we can consider that the ESRC, like the other four government-funded Research Councils is given a revised new mission to develop the objectives of the White Paper. As chapter two also noted, by 1994 the ESRC had fully embraced the need for linkage with industry and its presumed needs. The ESRC's new mission of that year suggested promoting the high quality of research and training, and the emphasis on meeting the needs of users and beneficiaries of social science research and training, and the wider purpose of public

funding of the economic and social sciences for improving competitiveness, public services and public policy and quality of life (ESRC, 1994a). Collaboration with users of research has also been emphasised repeatedly by policy-makers in the ESRC. (ESRC, 1997, Annual Report, Chairman's statement).

The ESRC has recently added into the conditions of its award a requirement that award holders take steps to disseminate the results of the ESRC funded research beyond the scientific community, and also to include a section in the research proposal which explains how non-academic users are being involved in different stages of their intended research. Daniel (1993) points out that it is too early to judge how far that will modify the behaviour of the academic research community. Webster (1994) in his paper on "The UK Government's White Paper (1993):A critical commentary on measures of exploitation of scientific research" addresses the same notion about the extent of the government's success in increasing the productive links between Public Sector Research and industry. The lack of explicit measures for evaluation of changes in this trend has been hinted at as a problem for early judgement (Webster, 1994).

The findings of this part of the study infer another policy-related problem in the low quality of management research in universities, and also the insufficient relevance of academics' research to the practice of management in organisations. According to the academic' views, these notions are discussed in section one.

Management research is defined as follows:

> "Management research is concerned with managers and their problems, and the processes of management in developing, operating and controlling organisations (private, public and voluntary) in their economic, social and political contexts." (ESRC, 1994b, pg. 5).

The multidisciplinary nature of management research is pointed out by the majority of academics in this study as a characteristic for showing its distinctive nature for collaboration with practitioners. This notion has also been considered in the report of Commission on Management Research:

> "Management research draws on the strengths of many disciplines. Some such as economics, psychology, and social anthropology, are well established. Others, such as accounting and finance, industrial relations, marketing, operations management, technology management, operational research and human resource management, are newer and generally more applied. It is a distinctive field of inquiry, that encompasses a broad range of specialisms, interests and draws heavily on its multidisciplinary

base to bring a diverse set of perspectives to bear on particular issues." (ESRC, 1994b, pg. 5).

The Commission on Management Research was established by the ESRC at the beginning of 1993 with four terms of reference: 1) to review the current states and infrastructure of research into public and private sector management in the UK, including resources for research training; 2) to identify examples of best practice in research endeavour and to identify factors that inhibit successful research; 3) to make recommendations to the ESRC and management community on how best management research might be supported and strengthened, and 4) to report the ESRC, and thereafter the British Academy of Management (BAM), by December 1993. The report of this commission was published in January 1994[1]. Suggestions of the Commission on Management Research (ESRC, 1994b) highlighted two principal sets of problems with management research in universities: first, the low quality of some of the research conducted, and second, the apparent lack of relevance of some research to users and the failure to disseminate it in a language they can understand. Improving the quality of management research in the UK is an important part of the management research challenge. The Universities Funding Council and its successors, the Higher Education Funding Councils, conduct periodic assessments of the quality of university research both to encourage excellence and to concentrate funding in areas of excellence. The exercise provides a measure of the quality of research rather than its relevance. In the 1992 exercise, Panels for each subject area studied detailed submissions from departments and graded them on a scale of 1 to 5. The exercise revealed (Ibid., pg. 13) that the quality of research in business and management was generally poorer than that in social sciences as a whole. Just eleven (13%) of 84 business schools were top-rated (Grades 4-5) compared with 30% of all social science departments. Stated another way, 33% of management researchers (666 FTE) were in top-rated departments compared with 46% of all social science researchers. In management, 41% of active researchers (826 FTE) are in Grades 1-2 compared with 26% in social science as a whole. The Research Assessment Exercise also revealed a strong contrast between the old university and polytechnic sectors; the highest rated former polytechnic received a grade 3 (Ibid.). Further evidence of the low quality of management research in universities is seen in the fact that the low success rate of research

[1] I interviewed professor Bain the chair of this commission in 3 May 1994 at London Business School.

applications is a main concern of the management research community (Ibid., pg. 1), and data from the ESRC's Research Evaluation Division shows that the major factor underlying the low success rate is poor quality.

The notion of increasing the management research relevance is also applicable in our discussion on the findings of this study. According to the Commission's report (ESRC, 1994 b, pg. 27) relevance has three essential dimensions: *Applicability* which in terms of relevance explains that this kind of research provides analysis, insight and advice on problems or issues of concern to user communities. *Timeliness* which refers to the balance between inherent longevity of the research process with the need for rapid change in business and society, and *knowledge exchange* which assumes that relevant research builds on close liaison with users and its results are communicated to them through accessible media and in a language they can understand. The importance of both quality of management research and its relevance are supported by the data gathered for this study. This notion is discussed through the findings of the supplementary interviews, in the next section.

Section One

Data and discussion

The focus of discussion through this section is mainly based on the analysis of a combination of the interviewees' notions in responding to research questions (cf. Appendix 1-B). This group basically comprises management academics within different universities around Britain. Some of them were also responsible for directing a research centre or a research commission in related areas to management research, or had experience of working in different committees of the ESRC, and other programmes of linkage between university and industry like Teaching Company Scheme and PICT. So, their ideas and views are a reflection of the various related experiences throughout their many years of academic life. This provides comprehensive and reliable information about the research questions. The results of interviews with policy makers at the ESRC are also discussed in this section.

The findings are formed around the most prominent concepts which came out through the interview in this part of study, and include:

- Diversity of research collaboration
- Multi-faceted nature of barriers and limitation to research collaboration

- Overcoming the barriers
- Research collaboration, and consultancy in management
- Success of research collaboration
- Learning process
- Research policy and collaboration

Diversity of research collaboration

One of the core points in academics' perceptions of collaboration between academics and practitioners was its diversity. According to the findings, there appears to be a pattern for referring to this diversity by academics which can be identified along a continuum with extremes of minimum and maximum degree of collaboration. They use different explanations for characterising the two extremes of research collaboration: for example, some of the academics' definitions of different types of collaboration are in terms of the degree of practitioners' involvement in the process of research. At one extreme stands the minimum, and at the other extreme lies the maximum involvement. The others, make a distinction between these two extremes by dividing them into minor and major collaboration. From the other explanations we can see that proximity is used for describing collaboration, like the presence of a close relationship between academics and practitioners during the time of doing research. The notion of shorter against longer term collaboration in terms of duration of time is another example of the variety of explanations raised by academics about the two different extremes of the continuum.

Although almost all of the academics whom I interviewed referred to the above notion, their experience of 'working together' with practitioners shows the complexity of this relationship in practice. The main contribution of practitioners to academic research as provider of information and facilitator for the access to informants in organisations, not only seemed to be a common experience among academics, but was also referred to as a pre-requisite for building trust and closer relationships in future opportunities of collaboration. In other words, these are some sorts of pre-conditions which are just a kind of moving forward to a closer relationship which makes collaboration happen in practice. One of the academics developed his discussion in this respect and pointed out:

> "...at first instance practitioners say: 'if you are interested to study on your research subject, we'll give you access to our company, to interview directors, you can interview managers and workers', and there may be no money in this area, just an academic access... by getting the time of people in a company to answer your questions, this seems an informal kind of collaboration which academics can then work up to where the company might say: we're not going to give you money as such, but we'll print your questionnaire, we'll distribute them to our employees for nothing, and so on." (AC 15)[2] .

The above statement indicates the existence of a developing process of collaborative relationship between academics and practitioners over the time of a research project in which an informal co-operation starts by intending to provide information for academic research, and extends to a more structured framework of their involvement in the process of research, though it still seems a one-way relationship. This process may lead to consideration of possibility of a two-way relationships through research collaboration in future.

Another academic commented on the notion of collaborative relationship between academics and practitioners from her previous experience of working on different research projects. This academic's ESRC-funded project was in the early stage of research, and at the time of interview, was being carried out with co-operation of the Institute of Management for sending out questionnaires to different companies. She explains:

> "Because our project is in the very early stage, we cannot really comment upon this collaboration, but in the past I have worked on two ESRC grants, neither of which were directly in a collaborative ground. Another project which I had, was more collaborative, but in my experience a lot of organisations are open to research and glad to provide an access to research and they do a lot of things and that is what we can call preparation in terms of information...most of the time, an initial relationship can help to get access, once people know each other, once again they treat each other, and on the basis that each party does have a particular interest in this with consideration that might say why organisations are going to commit their tiny resources." (AC 09).

The responses of academics to the question of definition of collaboration was mostly an explanation of their experience of doing research within different organisations, and not necessarily with the close involvement of practitioners in the process of research. Almost none of the academics gave a clear-cut definition of

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[2] Academics have been referred to by 'AC', and Policy- makers by 'PM'. Academics: 01, 09, 12, and 17 are the principal researchers, and 05 co-researcher of the five ESRC-funded research projects which were included in the list of 8 case studies approached for interviewing both academics and practitioners during the fieldwork of this study. See also chapter 3.

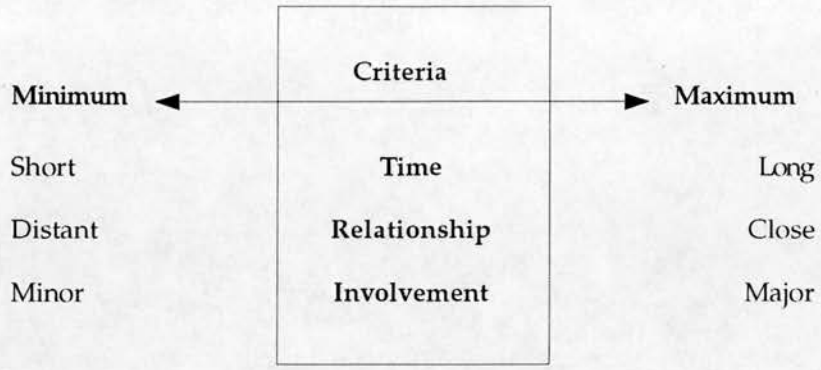
collaboration, and as mentioned earlier in this section, there are different understandings of collaboration between academics and practitioners in conducting academic research.

> "I think there are several different definitions, there is not only one definition for collaboration, for example one definition would be if a piece of research is funded by the government but takes place in industry, then that is one form of collaboration. If a piece of research involves public and private bodies as our research does - as the partners or collaborators or research subject - then there is another kind of collaborative research. If research has inputs and benefits to many different government and non-government bodies which is the case with a lot of scientific research, then there is a different model of collaboration." (AC 12).

The above statements reveal two different points. First, the importance of an informal start-up relationship and the existence of a previous experience of 'working together' to facilitate the happening of collaboration with a particular partner, and the second point which can be concluded is the different nature of collaboration in terms of financial relationship or working relationship. Sometimes, there may be a combination of financial and working relationships between funding bodies and universities. But the contribution of scientific research to fulfilling users' and beneficiaries' needs, as is referred to by the above statement, seems to be mostly a kind of research dissemination or impact of research on user communities rather than research collaboration. This is because the concept of collaboration involves at least two parties who work together on a specific subject with mutual interest. Traditional scientific research is normally a one-way academic-based production of knowledge by using practitioners as providers of access to information, and not necessarily engaging them in the process of research. Each of the diversities of collaboration has its specific nature and problems which are discussed later in this section.

Bringing together, I would like to suggest a schematic figure to summarise the different explanations which the academics whom I interviewed used for describing research collaboration (Figure 4.1).

Figure 4.1 The suggested continuum of research collaboration between academics and practitioners in terms of different criteria

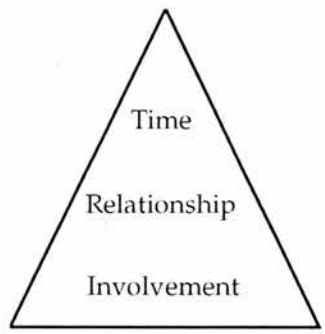


Although according to the above continuum, the mentioned criteria are mainly qualitative, and again the difficulty of measurement is a barrier for drawing a clear-cut typology of collaboration, it seems to be helpful as a primary tool to make a distinction between different variations of research collaboration. As we notice, there is a similarity amongst all of these criteria, a conception of two distinctive extremes, and obviously different varieties of collaboration, with stages in between. For example in terms of time scale, one of the academics explained that if he needs to get involved in case-study work during his research, it is a short-term collaboration, because it involves no more than one or two visits and talking to people. What is important is not only the duration of time in which academics and practitioners come together for proceeding with a research project, but also the nature of relationship and its purpose within the whole life of a research project which make for distinctions between different types of collaboration.

Sometimes, it seems that there is a relation between these criteria, for instance when some of the academics in this study talk about closer relationship they refer to a process of feeding back the results of research to practitioners and having their feedback on the findings of research in different stages of a project. This can be achieved by sending summary reports to practitioners, arranging action workshops for providing a better understanding of the findings of research and getting an opportunity for gaining recognition of the real world's problems in relation to their research subject through practitioners' feedback. They also refer to major collaboration in terms of practitioners' involvement by giving examples of joint meetings before writing the research proposal for the purpose of defining the question of research, and discussing the findings at different stages of a project.

Two points emerging from analysis of the data are worth noting. First, the presence of an element of exchange between academics and practitioners in terms of time, information, and knowledge which increases as we move forward to the right side extreme of the continuum of collaboration (Figure 4.1), and a hierarchical relationship between these elements - time, relationship, and involvement. According to the analysis of academics' reference to their own experience of working with practitioners, the most common contribution of practitioners to academic research is allocating their time for being interviewed by academic researchers or completing research questionnaires. Some of the participant academics in this study pointed out that practitioners respect academics and help them within their limited time, but they tend not to be concerned about the results of research, its process and technical aspects. Even when they support a research project financially, it does not mean that they have a close relationship during the research. So, it seems that involving non-academic users in the process of research is more complicated than it looks at first instance. It can be said that as soon as an academic decides to engage practitioners as one of the non-academic users of management research into the process of research, s/he has to move further from just fulfilling the need of getting access to information. In other words they ought to provide situations of closer relationship with practitioners, and get them involved in different stages of research. This hierarchical relationship is shown in Figure 4.2.

Figure 4.2 The hierarchical relationship between different criteria of the diversity of collaboration



As we move toward the base of the above triangle, the importance of a two-way and close relationship in collaboration between academics and practitioners becomes more obvious.

The factor of exchange is crystallised in one academic's discussions about the nature and importance of the two-way relationship in practice of collaboration:

> "Exchange of information, exchange of skills, exchange of the viability of doing certain things. Exchange, I would say, is the essence of it if you are working with industry. Applying this to the past, we built different group relationships within industry texture... because you are going to look at a lot of things that quickly and potentially are embracing to them... there are a lot of words there, the way you wish to deal with information and convey it. I am not saying to hide anything, not at all, but the way that you deal with it is very important, you need a mutual relationship." (AC 09).

Two of the academics referred to 'collaborative research' as a new paradigm of doing research. These academics had experience with this method. One of them who is very much in favour of this methodology explains his reasons:

> "...I mean that we may have two meanings of collaborative research here, because when I wrote my methodology section, I said this project is collaborative in a methodological point of view. If you just got someone sitting there and would have to give you data, I do not believe that people give you good data. If you were doing this method{collaborative research} with your partners, then they are much more motivated to do their best to give you the best data. I also think that as part of the respect to human beings, to treat them as things that you do research on is not appropriate. The only way that we can do research is collaboratively again. So, I suppose in that sense I would say that all my research is collaborative because it is working with people, not working on people, and now the benefits of collaborative research are that if you work with people, then you can get a lot of data." (AC 12).

The impact of the chosen methodology for research is one of the notions which is worth noting, particularly within the discussion of research collaboration. This point is developed later in this chapter.

More than half of the academics who participated in this study believe that when they do research on industry with just their financial or non-financial support, and not with their involvement in the process of research, it cannot be called collaboration and even some of them are sceptical of this collaboration being in good faith at all. One of the academics justified:

> "I think collaboration will be working on an equal basis. Collaboration is stronger than simply having industrial support...I am very sceptical about that. I cannot blend working with companies to develop things, I am very doubtful about it." (AC 07).

This notion is one of the core points which distinguish the study of research collaboration between academics and practitioners from the other contexts of collaboration such as research collaboration between academics, inter-firm collaboration between similar groups of professionals, joint venture, and other kinds of inter-organisational collaboration within public, private, and community-based

sectors. The complexity and limitations of research collaboration between academics and practitioners is the subject of the following discussion.

The multi-faceted nature of barriers and limitations to research collaboration

The difficulties of collaboration have a financial aspect as one academic noted:

> "As soon as a company contributes to giving money, they have a claim over the results and the results would be biased because no researcher, no matter how tough they are, when they are being paid by companies, they wouldn't be able to do proper academic research, they will always be biased same as the consultants are."(AC 06).

Another academic raised problems about the time scale:

> "... we are not here to find defined solutions to problems in a six months time, but we are actually here to provide another level of analysis which picks up trends, which focuses on the terms of debate within which problems are defined clearly,...there are other areas that consultants are much better at doing those and we are not."(AC 17).

But, it seems that this is not a common belief among academic researchers. Some of them do not see any problem with providing a two-purpose research, for example, another academic explains her previous experience of doing a collaborative research project funded by the user organisation and suggests on the above notion as follows:

> "...what it does mean however, I think you can do a good theoretical work from a funded research in a particular area." (AC 03).

As we can obviously deduce from the above statements, there are two different attitudes about the main roles of an academic researcher. One is when they see themselves as 'problem finder', and another attitude is a combination role of 'problem finder' and 'problem solver'. This diversity may be caused by differing types of research projects - a basic theoretical or methodological research, or an applied research for approaching a specific problem concerning the users' needs and priorities. Different types of researchers in terms of their personal procedure and focus in doing research may be involved in this diversity. One group of academics shows willingness for practising research collaboration by engaging practitioners in the process of research, whereas another group prefers to stand back from blending their work with the practitioners' involvement in the process of research.

One of the academics hinted at the same idea of the distinction between researchers in the academic community and pointed out:

> "To some extent academics might prefer not to work on applied problems, since their interest lies in theoretical problems. This might also reflect the profile of staff in British business schools. Generally, there are two sorts of academisc - those of us that have followed a traditional academic route and those that have come into business education from management. The former usually have a degree in a basic social science (e.g. economics, psychology, sociology), have done a research degree, did two years post-doctoral research before moving more into teaching. Such people, who include myself, are trained to a high level as researchers, but prefer to apply our research skills to problems more in keeping with our basic disciplines. This could be for two reasons- professional bias and also the fact that there is more prestige associated with publishing in the journals from the basic disciplines. Those academics that moved into teaching after a career in management usually do not have the skills to: a) conduct rigorous research; and b) to disseminate the findings in the learned journals. Although such academics can be better at spotting truly applied problems and thus be in a better position to carry out truly collaborative research, such research does not often reach the standards to reach a large audience, since it is more often related to a very specific problem rather than wider theoretical concerns, and usually from what I can see, takes the form of a single case study - and case studies have to be conducted very well to reach acceptable scientific standards." (AC 05).

The above notion seems important in studying the impact of the recent ESRC's research policy on encouraging the engagement of non-academic users in social science research in general, and in management research in particular. What proportion of academics will reflect positively on this policy? How much can this policy be applicable in the actual practice of research collaboration between management academics and practitioners? What seemed clear, at least, during the time of this study was an overestimation by the ESRC about the number of management academics who were responding positively to the recent research policy of engaging non-academic users in the process of carrying on their research projects. Although a large proportion of the academics showed a general support to this policy, none of them attested that this collaboration is an easy and unconditional possibility for academic research in management.

Another problem was set out as the intangibility of the product of research in management. Academics give different explanations for this difficulty, for instance suggesting that they believe that in a technical area, for example developing a new technology, there are clear contributions that industry have to make and the academics have to make, though even here there is a problem of intellectual property rights. The academics emphasised that the problem for management research is different and managers and their organisations do not usually get a clear and tangible product.

The distinctive nature of management research compared to science and technology studies and its impact on the motivation of practitioners for entering into research collaboration with academics was a common point which was attested by interviewees in this study. As was discussed earlier[3], the main reasons and motivations for most of the firms for seeking academics' expertise and technical assistance are different from the motives for undertaking management research. One of the academic researchers develops this different aspect of management research:

> "I think this problem is tangibility, if you are talking about, for example, we want a machine, we want to improve this process, then at the end of a particular period of time you've got something which you can formally measure, you can look at that because it is tangible, you can see the improvement that it has made. So, the industrial partner can see the result raised directly of the collaboration and I think it is also where there is a process of technology or innovation. The companies who might be funding those projects realise there is the expertise and the facilities available in academic institutions which perhaps they have not got access to. So, they have to go and buy it; quite expensive equipment, and bringing experts..." (AC 16).

The nature of results and output of research in terms of tangibility was the focus of the above statement. In other words, it can be said that practitioners in industry normally approach research collaboration with academics to acquire knowledge and expertise that they do not have 'in-house'. If it is the issue of day-to-day decision making, then the situation may differ:

> "...I think when it comes down to the management you have got this problem of the skill and the practice of management. They do day-to-day decision-making. That is why they do not recognise the need for research on what they do day-to-day. So, they are looking to solve a new issue, or a new problem. They believe they have got a lot of expertise inside to do it, and there are mechanisms by which a solution can be found which perhaps is not same as in the area of science and technology. There isn't that other party out there which could give the solution to them. When it comes down to management issues there is a third party there. The third party accepts the management consultants who can go with solving immediate problems within the organisations." (AC 13).

There are some revealing points in this comparison between management research and research on the fields of technology, and R&D. The necessary skills and practice of management, in managers' belief, are more accessible and reliable inside their organisations than in universities. Day-to-day decision-making, the appropriate time scale (short-term) from managers' point of view for solving organisational problems, and consequently, preference for using consultancy rather

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[3] See chapter 2, 'motivations for collaboration', pg. 33.

than academic research are other aspects of this distinction. These notions have also been supported by both collaborator academics and practitioners through case studies which are discussed within chapters 5 to 8.

Another academic points out:

> "...I think the problem is more one of a time scale, the problem with the practitioners is that they do not understand the nature of research, the research by nature takes time and very often practitioners want an answer in a day or month or whatever, and of course research takes time, I think practitioners almost want research when they should have consultancy because you know what they are saying is 'we need an answer within three weeks'. You cannot manage a research project within this limitation." (AC 02).

The different nature of management research in terms of knowledge transferring is another explanation which one of the academics suggests:

> "There is a difference between science and technology and management in terms of knowledge transferring. It is what you pretty well noticed, in science and engineering and science and technology, there are right answers and wrong answers, it is much more black and white, much more cut and dried. I think scientific problems which are solved or technology problems which are solved, they work or do not work, it is not really so much a matter of ideology and belief. For example, it is a matter of making those chemical materials together that produces whatever a gas or does not....the trouble with the management is that a lot of it is an art more than a science and a lot of it will work in one context and not another." (AC 14).

This comparison between social sciences' and natural sciences' research is repeated frequently through different statements by academics whom I interviewed during this study:

> "I think it is because research in the technical area tells us the story more convincingly, but in management research when you are going to do research you are trying to pursue somebody that you have discovered something fine, that you have a basis for telling the story in that way. A lot of sciences have been done very well. If you look, for example, at physics research, they tell the story in this way: 'this is real science, this is proper science'...in social sciences, I think what we've attempted to innovate is that the only science is physical sciences which I think failed. It failed because the science principles in physical sciences is what takes place in physical sciences and what they do. In the social sciences the people are active, you are here because you are a researcher and research something and at the same time I research on you, because I am a person. When a person does research on a molecule, a molecule is not doing research on him, and because of that, physical sciences are an easier context, and also they have got this conspiracy and suggest: 'what I am doing is united, important, truthful' and they have got away with it so far." (AC 12).

The above notion raises a question of 'what is *proper* science?' The dominant concept of the supremacy of physical sciences compared to social sciences can affect the perception of both management academics and practitioners about the applicability and benefit of research collaboration.

Another interviewee who was the contract manager within a university's commercial liaison company (UnivEd)[4] explains his experience by comparing the relationships between academics and practitioners in Medicine and Management research projects:

> "In general, for example as in the Medical faculty where I have done a lot of work, it is actually relatively common for us to be able to identify the common research goals and interests between the members of academic staff and people in industry. For example, in the pharmaceutical industry some companies spend on average, 50% of their turnover in research and development. In that sector it is very common for the academic members to make an initial contact with people from industry, for example by speaking in a conference or symposium. People from industry will often say to them: 'we would like to talk to you further about how we can collaborate and explore these research goals... but in management research there is very small amount of money, and that is just that people in industry have to justify for their bosses what they are buying. If they say to their bosses that I am buying management advice, then their bosses are going to say, you need advice! I think that is another weakness..."[5] (AC 10).

Anti-intellectualism culture

One more consideration which came out through this study was academics' explanation about the presence of an anti-intellectualism culture among managers in Britain, and also a weak belief in the benefits of academic research for solving their

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[4] UnivEd is the University of Edinburgh's wholly-owned commercial liason company established in 1984 with the remit to market and exploit the Universityís resources of expertise and facilities by negotiating Research and Development (R&D) contracts and arranging Consultancies, Training Courses, Conferences and Seminars. Contract Managers provide University staff with a single contract point for all the activities associated with collaborative ventures with external organisations (derived from The University of Edinburgh, UnivEd Technologies brochure: R&D Services to staff, 1995).

[5] During this interview I was provided with an up-to-date list of all UnivEd social sciences contracts in 1995. Reviewing this list showed that only two of total 53 contracts in the social sciences research were carrying on in the department of Business Studies at that time. According to data gathered from this interview, these projects were mostly a matter of preparing services for clients in industry and commerce rather than research in management. The majority of other social science contracts were with government departments (34 or 64% including 6 projects which were catagorised under EU Govt).

problems. This was the point that was addressed by some of the academics as a barrier for entering into collaborative research projects in management.

> "...we can argue many things, there is a sort of anti-intellectualism in managers in this country, and many of them compared to other countries do not have a university education, but some do have, and the proportion of managers in this country who have a university education is lower than the United States, Germany and France. From the other side, the problems that academics work on is very different from the concerns of managers. The other one will be the methodologies that academics use are also too distant from the problems of managers, so there are many reasons why one might argue this problem exists." (AC 11).

Another academic refers to the same point about an anti-intellectualism culture among practitioners in Britain, and when I asked his point of view about the universities' responsibility and academics' role for overcoming this problem he suggested:

> "...I think we have a cultural problem in this country which is a very anti-intellectual culture and there are people who are easily resistant to talking to the university. I think the university should have a responsibility for that start, which is the university teaching, and we should never teach the undergraduates something which is based on text books because they could read that anyhow. That should be a dissemination of new research. Secondly, we should build up relationships with the organisations and begin to talk to them about what we can tell them about research and how we can do that." (AC 12).

The consequences of the anti-intellectualism culture among British managers is stated by another academic:

> "...gaining access to organisations is difficult enough, even when you have research funds, so collaborative research is more difficult, unless the organisation approaches you. Many organisations distrust academics, so they are unlikely to approach business schools. I think this reflects the low education levels of British managers compared to their European counterparts and the typically 'macho' attitude of many British managers. These two factors may conspire to make British managers defensive and aggressive when meeting academics - this is not always the case though. I don't know whether this is true, but in my experience, companies that have a very technical tradition and recruit highly qualified technical graduates and postgraduates (e.g. ICI, BT) are more likely to approach business schools to do research. However, sometimes these companies are happy to let business schools do the research, but won't allow the findings to be disseminated for fear of leaking confidential information. In this case we don't hear about the research {unless we know the person whose work is being suppressed} because it is never published." (AC 05).

The contractor manager for Medical and Social Sciences research in UnivEd referred to his experience of many years working on facilitating research linkage between

academics and practitioners and raised the same point of existence of a negative belief among British managers about the value of academic research:

> "I do not think that clients in industry have the inclination to pay a lot of money for management research. I think many of them in a right or wrong way think that academics haven't got too much to teach them in real world about management in organisations." (AC 10).

Given that differences between the values and purposes of two different institutes is one of the most important barriers in 'working together', this problem becomes very revealing when it comes to research collaboration between university and industry; two institutions with two different communities, diverse aims, distinguished focus and orientation of research, and distinctive expectations. One of the academics refers to this aspect regarding her experience of working in collaboration with practitioners and points out:

> "Their agenda and our agenda were different. Their {practitioners} agenda was: this is a new service, we want to develop it all over the country, let's see what we can find out from centres that this is happening to inform the places as so far the services are underdeveloped. So, that was their agenda. Our agenda was much more about looking at the process of service development, for a new health issue." (AC 03).

Different orientation and expectations of academics and practitioners was raised by other interviewees as a preventing factor for bringing academics and practitioners together:

> "...when I first started this job. I was horrified with the number of academics who kept telling me they have some money from industry, but it was very few strings attached, and that they just want to keep good relationships open with me and my researchers. But people in industry, actually said we are looking for him to deliver this area or that area, and we have very clear objectives, the academics have not even understood the definite need for results. Both parties had such a different view of collaboration. It is part of my role to make sure that both parties' expectations are clearly defined...so it is a balancing act, between two non-identical compatible objectives, and it is so important that again both parties appreciate that..." (AC 10).

One of the academics whose recent collaborative research project was funded by the ESRC explains his expectations from doing this project with the involvement of collaborating practitioners in industry:

> "...I do not expect that the people who we are working with within the industry will write to the ESRC and ask them to see the newsletter so then they can find out what else they can do. I do not expect that they will become generally fascinated by other kinds of research projects as a result of this, nor do I expect that the ESRC will become so interested in our research sites that they say: 'can we go and help you with anything else?'. So the collaboration

> is, as I see it, entirely through us{research team}. So, my expectation of the collaboration is what is quite common for collaboration: that people come together, they collaborate, each party gains from the collaboration, if it is a healthy collaboration, and then they go apart. So my expectation is that each party will have gained something out of it..." (AC 12).

The essential issues which are worth noting in the above statement are not only the different nature of academics' expectations from research collaboration and seeing it mainly through the eyes of an academic research team, but also the notion of temporary life of research collaboration during the time of a research project seems questionable for the future research on the subject of research collaboration. If a collaboration cannot build up a foundation for future opportunities of 'working together' or it does not influence the practitioners' approach of acquiring academic research, can we judge such a collaborative project as a successful one? The importance of existing relationships between academics and practitioners is suggested by almost all of the academics in this study as a pre-condition to facilitate engaging non-academic users in the process of research, and to gain more valuable information in practice. This notion is discussed later through the suggestions of academics for reducing the barriers of research collaboration.

Barriers to exchanging information between academics and practitioners were raised by the majority of academics as an essential limitation to engaging non-academic users in the course of a research project. Interestingly, some of the academics referred to the shortage of the necessary skills among the academic community which stems from the difficult language of academics and the lack of presentation skill for communicating the research results with the users. One of the academics suggests:

> "...there is a statement which says scientists, and social scientists in particular have a moral responsibility to write the results of their research as clearly as they can. I think that there are two sorts of technical language in the social sciences: one is based on the scientific methods and statistics. The idea there is that sometimes it is difficult to translate them into these terms. On the other hand, is something, such as sociological theories, which is sometimes to try to incorporate some theory into a report to make it more academic or respectable. That is what I think should be avoided at all costs, but it goes on." (AC 01).

Another academic sees this barrier from a different perspective:

> "...It is partly the social sciences' fault that we have developed a discourse and a language which bores other people to death. So, I think partly a lot of social sciences is boring..."(AC 04).

Skills of presenting the results of research and the ability of communicating these outcomes with users of research were explained in different ways by academics:

> "...so, I think that the skills of presentation are very important. We as academics are not trained for them. Some of the people got it, some are good at it... I think more success could be engendered if the academics who are engaged in this sort of work, will be giving the courses on presenting the clear cases and giving the feedback of results to the clients." (AC 01).

One of the academics who strongly supported collaborative research, not only referred to the importance of reducing the barrier of academics' difficult language for communicating the research result with non-academic users, but also criticised the type of relationship between academics and practitioners through the traditional way of doing scholarly research and attested:

> "...so, when I go back and talk again to the managers, I need to talk to them about what they said last time and I need to keep it in their language. If I take it in my language then that is not known as collaborative anymore, so I think that is the good thing and the bad thing of the collaborative research. If you had to pay for the time and access to the persons, it would be very high. It is not always as easy to find partners....what the researchers normally do is to take the data away and they do clever things with it, they analyse it, they put it through programmes, they summarise it, they do something truly sophisticated, and then they come back with the answer which cannot be recognised, and has not anything to do with the data that is given... " (AC 12).

Some of the other academics went beyond the necessity of presentation skills. They emphasised that there are other skills in addition to writing for non-academic users and presenting the relevant outcomes in a way that users can absorb. This group refers to the importance of negotiation and consultancy skills as a requirement to research collaboration:

> "...in my previous project, I was directly involved with organisations and it was negotiating, and to some extent you have to convince them that they are getting some consultancy, and it is not going to cost them, they are getting something they may not quite want, but it may pay them better at the end of day." (AC 09).

The low quality of research in the social sciences in general, and in management research in particular, is one of the other criticisms which academics made about the barriers to practising research collaboration between academics and practitioners in Britain. One of the experienced academics who has many years experience of working in different committees of the ESRC hinted at this point:

> "... outside of economics {but I am not an economist, so I am not trying to promote my own discipline}, standards of research expertise amongst the academics is extremely low by world standards {conventional standards}. Nonetheless

> there are scores of people in the old and the new universities who can do research, and do bad research, from my view, and they get supported...let's take sociology. There is probably only a handful of people in Britain who can really do competent research in sociology by the standards that you find, for instance in Chicago...that is not a view that all my colleagues share...in management it is the same. A lot of people practising and pretending to do research when they do not know how to do research. If you compare the quality of management research which comes out of the average management departments in Britain compared to Stanford, you find a completely different league..." (AC 01).

Now, this is the question of how can these barriers and limitations be reduced, or overcome? A distinction can be made between the different factors which were suggested by academics as barriers to research collaboration between management academics and practitioners in Britain. One group of barriers are those which require long-term action at a higher level of decision-making, such as improving the quality of research on the academics' side and changing the anti-intellectualism culture on the practitioners' side, but the others are the barriers which can be reduced or overcome by providing some shorter term mechanisms and solutions at the micro level within the universities and research centres and inside the non-academic users' organisations. Some of the academics' suggestions are discussed here. One of the academics who was also the chair of the Commission on Management Research comments on the notion that management researchers in universities can gain the interest of managers for using management research and entering into collaboration with academics:

> "I think we can solve these limitations by working on the problems of the future rather than the problems of today and yesterday. Often what is the problem of today will be sorted out one way or another, before you begin research done on it. It seems to me that a lot of research projects should be more forward-looking, the issues which come up in the next three to five years, and researching those." (AC 02)

According to the findings of this study, although the concept of forward looking can potentially be a solution to the problem of managers' demand for immediate answers, it does not seem an easy task for academics alone. In the light of the different circumstances of practitioners' organisations and the changing needs of these organisations for surviving in a competitive environment, a forward-looking research requires not only an up-to-date awareness of different changes in macro-level factors, but it also needs enough information about different organisations at the micro-level. This is because each organisation, regarding its internal circumstances, seeks different issues for coping with different strategic managerial problems. Closer relationship and collaboration between academics and

practitioners through different methods - training courses for managers, involving them in management case studies, workshops and seminars - is argued by academics in this study to be of great help to the formation of the agenda of forward-looking research. These initiatives can also produce a foundation for future opportunities of collaboration between academic researchers and non-academic users of their research. Another approach to the ways of involving managers in management research suggests:

> "A very big point, which is sometimes ignored and is perhaps the main way of actually getting managers to know about research, is through executive teaching. One of the main conduits of funnelling for handling research into the domain of the practice is through teaching....managers do not read too much, they are the people who like to talk, they like to exchange ways, and they would much rather come and see you and talk to you about a course of action, and in a very funny sort of way, teaching is like that and very often managers may be observing some of the latest research, but not even be aware of what it is! What is it studying? They think it is a case study, it is a presentation, but it is actually a research project." (AC 02).

The above statement notifies another possibility for engaging non-academic users in management research, and sometimes, it can be counted as the pre-requisite for getting the interest of practitioners and engaging them in the process of research. The following statement was pointed out by another academic in the same respect:

> "I think the seminars and workshops are very good ways of building look-forward insight and at that level in seminars we can get a good range of university speakers and a good range of outside participants and that is a sort of a great network, and I think it is a good way of starting networks and we do need a collaborative discussion between industry and university...I myself think that it is very important to make sure that the information is circulated to the management network, not just to the academic network. Because managers do not go to the academics' network at the moment, we should circulate it and we have to make sure that we put this information at a level that managers can deal with." (AC 09).

This academic refers to one of her previous experiences and suggests reducing the barrier created by the academic language of university researchers to managers in organisations:

> "In one of my previous works I have written a report in a sort of format that middle to senior managers can follow. Of course we also obtain some academic articles which may be of a very different nature. We shouldn't expect that the managers have got access. They do not have enough time...I do not see why as academics we cannot put our reports in simple words for managers, and I do not see anything wrong with that. We should have various levels, because they {managers and practitioners} have different needs in terms of provision of information. They need easy and accessible information, easy to take on board, easy to understand." (AC 09).

The different nature of information which is required by practitioners is a point that the majority of the academics agree on. One of the academics not only expresses this notion regarding his research experience of working with practitioners, but also is curious about the best way that academics can realise the practitioners' real needs from an academic research that has been done with practitioners' collaboration. This academic points out:

> "...I think we do have a major problem now about giving back information to practitioners. One of the things, which if your research can find, is a way of telling the management research community how they could manage to do it better in the science research community, and I would really like to know how, in terms of what you give back to people you collect data from. I think that is the most useful thing for them." (AC 16).

The above notion is examined through the case studies, and is discussed in terms of both academics' and practitioners' expectations from a research collaboration.

The experience of another academic who was also the chair of a research centre suggests organisational mechanisms which may reduce some of the barriers of research collaboration between academics and practitioners, and consequently increase the probability of the success of this relationship, such as the use of an advisory board to help with linking to industry and public sector, conducting action workshops for presenting the results, or a coalition of partners.

> "...to me the most obvious way that I can get straight to the point, the roots of partnerships and collaboration start with these themes that the academics persuade. To me, my research is thematic, it is not disciplinary purposed, I do not go out saying, for example, what is a sociological problem. I go out saying what is a theme which is of important custody, and my theme is 'change'. So, I have chosen a theme which is well embedded in the social sciences; sociologists are interested in it, economics are interested in it, psychologists are interested in it, everybody can find an interest in 'change'. So here is a theme which has been equally embedded in social sciences which is very important to your scholars - that your work is deeply embedded in their disciplines, but it is also a theme which has a great concern for mangers and practitioners. Especially in Britain in the 1980s and 1990s everybody including university professors were facing the problem of the management of change." (AC 11, the chair of a research centre).

Using a previous relationship with practitioners was referred to as a way of reducing the barrier of 'working together', and as a pre-condition for facilitating the research collaboration between academics and practitioners.

> "In fact two of the three organisations which are involved in our research are ones that I personally have a long-term relationship with, and the third one is one which one of my colleagues has a long-term relationship with. So, I think it is a good question again, because that is probably very important that we are not going in there as hit and run debate, and one of the reasons why

> they are giving us their time and energy is because they believe that they would get something back from us, and it is informal because of this on-going relationship..." (AC 12).

The difficulty of feeding back critical reports to managers and the problem of confidentiality were explained earlier by academics as another barrier to collaboration. Some of the academics in responding to my question of 'how can we overcome this barrier?' made various suggestions. One emphasises that:

> "You can go over that by assuring managers that you are not going to do your research by focusing on individuals and not individual organisations..." (AC 04)

Another academic who has many years experience of collaboration with industry points out:

> "The best form of linkage or interaction {I think collaboration is not the right term} is properly the one where no individual company is involved and the research is not focused on an individual company,...I believe in giving the companies to some extent the negative feedback. So, the necessary condition for effective linkage between industry and academia would be where at most the companies are involved in one project..." (AC 07).

The reputation of an academic researcher and the university from which s/he comes is another factor which the majority of academics in this study referred to as a fundamental consideration in developing the working relationships with practitioners. One of the academics who was the co-researcher in one of the ESRC-funded projects pointed out:

> "Certainly from our perspective, we needed to obtain access, so we had to 'market' ourselves as being closer to truly applied work than we really were. Being associated with the names {the university} and {Principal researcher in this project} helped this considerably - I think 'end users' of research are always looking for evidence of credibility - and are not likely to read the academic journals, so affiliation with a well-known business school or management 'guru' will help things run more smoothly. Even so, good contacts within organisations are also important. In this respect, having an internal champion within an organisation will help you gain collaboration from other people within that organisation. Of course contacts are likely to be more useful if you are doing work that is directly relevant to immediate business concerns of that organisation, but in all situations the internal champion confers a good deal of credibility." (AC 05).

The above discussion on the multi-faceted nature of research collaboration between management academics and practitioners leads to another part of the findings about academics' views on the different nature of consultancy in management and its application.

Research collaboration, and consultancy in management

Consultancy and the manager's preference for using consultancy services rather than academic research is one of the most frequent themes which came out during this study. The findings show different aspects to this debate: for example, the general differences of research and consultancy, the reasons for using consultancy by various firms in terms of their field of activity, size, organisational culture and the nature of the problem that they are confronting.

Different academics in this study gave a variety of explanations about the differences between academic research and consultancy which is discussed later in this chapter. Before looking at these statements in detail, the academics' different attitudes towards consultancy which emerged from data analysis are arranged under two distinctive categories of advantages and disadvantages in terms of their positive or negative approach to consultancy compared to academic research (Table 4. 1).

Table 4.1 Two different attitudes towards consultancy in terms of advantages and disadvantages

Advantages	Disadvantages
Rapid and selective means of transforming information;	Consultancy is a quick-fit solution for just specific short-term problems;
Providing solutions to specific problems, relatively inexpensive service;	Cheap consultancies are only a convincing means for decision-makers to claim support for their decisions;
An effective means of practising a two-way communication between academics and practitioners, and the first step for building-up close relationship, and developing collaboration in future;	The importance of the neutrality of academics in their research which cannot be fulfilled during consultancy, and may be biased in some aspects;
Less jargon in the final report of research for practitioners.	In most situations consultants come with a general prescription and it does not withstand a deep investigation based on adequate information.

One of the academics suggests:

> "I think it may be partly psychological on the points side of the managers themselves actually. If you have been prepared to put your own money into

> something and a great deal of money, you are going to want to justify that for you. To be perfectly honest, some of the work that is done by consultants, in my view, is very limited indeed {not all consultants, obviously}. But some of it is very poor quality and a lot of it is very quick fix stuff. One of the reasons that they {managers and their organisations} do not like management research is that - if it is any good at all - it is not really a quick fix about this. What managers want all the time are the answers, and I wouldn't presume to give anybody any answers, but what you can give them is a better understanding of questions. But in the end they have got to decide." (AC 03).

Another academic attested:

> "...getting feedback from academics of high calibre makes for a distinction between us and consultants. Our reports are more challenging, much more objective, much more likely to determine the truth, and consultants' is more about selling their products. So we have to make a distinction between these two." (AC 01).

The widespread use of the consultancy services by the majority of managers was emphasised by almost all academics in this study, but again, the justification of the differences between the higher quality of research and its distinctive nature in terms of the beneficiaries of research was a focus of academics' views:

> "I think that the money came through consultancy and quite often, what that means is that the activities involved may be quite similar. The question is who is the beneficiary?... in research the intention is that the benefit goes to a wider community because research should be something that others should see if you have done it properly, that is what research is. To be able to call something research I would have to be able to show people, and let them criticise it, and now in the industrial sector that is extraordinarily difficult because of commercial secrecy..." (AC 16).

Another academic points out the different aims and objectives of academics and practitioners for involving themselves in research as the reason for the practitioners' preference for using consultancy services rather than engaging in management research with universities.

> "...it depends on what the purpose of research is. Academics' and practitioners' {managers} aims and focuses are different. Academics' interest may be fulfilling their intellectual curiosity and managers might have interest just in solving a particular problem. So, managers might tend towards the consultancy approach." (AC 08).

Sometimes, what can be gathered from our data is that companies prefer consultancy because they feel that they have more control over the consultants, because there is a commercial contract and they can get the money back if they are not satisfied with the progress of projects. In other words, the commercial contract which they have with consultants, will not normally be developed with academics.

A practitioner who participated during the stage of conducting pilot interviews in this study, explained that:

> "In the academic situation they tend to say give us some money or give us the data, we will go to do research with it and will come with the answer. Meanwhile you have to mention: when, where and why you require it, otherwise stay away from us." (a practitioner)

One more point which was made directly or indirectly by the majority of academics was their emphasis on their distinctive identity as an academic researcher. The following statement highlights this notion:

> " I think I have to make a statement to start with, I have never worked as a consultant in an organisation and I won't do it. I have a job, I am a researcher, and I am not a consultant. I do not take on consultancy projects. Having so said, I have just provided report for organisations on the research works that I have done which may be a kind of consultancy report without charging them. So, it is from a different viewpoint. " (AC 09).

There seems an agreement among the majority of academics in this study that effective management research mixes theory and practice. One of the academics explains her attitude about this notion:

> "I came somewhere into that and all they wanted to identify was simply good practice. I didn't come up with anything like good practice. On the other hand, I came out with a whole issue, processes and practices which was useful to share with other involved organisations...I can address what the practitioners want, and I can also address theoretical issues. I can use my own methodologies and then I can do it in such a way that my findings might be useful for both. " (AC 03).

Another academic suggests:

> " ...you know somebody might say there is nothing as good as a theory and I think it is very true, and I do not think that practitioners are out of the theories, because they have their working rules of the firms which is really the theory, they assume from their experience, if they do 'x' and 'y' what is the result, and hence, I feel that there isn't or shouldn't be a really major tension between good academic research and good practical research in management." (AC 02).

Success of research collaboration

According to the findings of this study, there are two groups of approach among academics. First, the majority of academics whom I interviewed suggest a role for users in assessing the success of research collaboration, but for the second group the criteria are the academic success of research in terms of peer review, publications and getting more funding for future research. This group comprises the academics

who mostly do traditional scholarly research. A few examples of the first group's explanations in this respect are as follows:

> "I suspect from an academic point of view we have a quite successful project which hasn't produced anything particularly valuable to the clients" (AC 04).

Another academic points out:

> "It is such a complicated story, I do not think that there will be a general set of descriptions in terms of when it is successful and when it is not. When it is successful it has to be also successful from the client's point of view. What I am saying to you is that I do not think I could write down ten points which would be good practice for gaining success. Different factors may be involved in this, for example, the nature of enterprises that you are going into and the problem which sometimes isn't resolvable within your services that they have asked for. I think it is quite important that academics, in such a situation, have perhaps a certain ability to say, I cannot do more." (AC 01).

A question can be raised here in terms of the authority that has to evaluate the success of research collaboration. Is this the academic community, non-academic users, funding body, or a combination of all of them? For example, in traditional scholarly research it is generally an evaluation by peer reviews through the academic community which determines the success or failure of a research project. But through collaboration with practitioners, an additional evaluation by collaborating practitioners or their organisations becomes a potential element of the judgement on the success of a research project. One of the academics develops this concept of successful collaboration by applying it to his on-going research project:

> "...both parties would have got good outcomes. So, at the end of my research project, I hope that the organisations that we have been working in, who have given us a lot of their time, would be delighted that they gave us that time because they would have learnt from doing it, they would have learnt from talking to us, they would have understood something new about what they were doing as a result of giving us the data. So, I hope that the people in those organisations who have given us time, would be pleased to know they had put a good value of time on this project, and they would consider themselves as better managers as a result of doing that..." (AC 12).

As the funding body of the above-mentioned project is the ESRC, this academic refers to the criteria that, from his point of view, are used by this body for judging the success of the research project.

> "... from the point of view of the ESRC, I feel that they would be satisfied if we are able to show them a good convincing report which tells the story of the research, so that the people who read it think: yes, this was money well spent, and this showed us something which was worth knowing about, and was theoretically good. And, if you can also show them a good set of publications which demonstrate that what we have been doing has high acceptance, high

> validity in the eyes of the highest level academic colleagues, so, that is what I think would be a successful project, and if we are the research team and have managed to grow and learn from it, so that our next project is better. These are my criteria." (AC 12).

Considering the above notion, a question may arise here: 'Is there any difference between the criteria for judging the ESRC-funded research projects which have been carried out in collaboration with non-academic users, and the ones which include the traditional scholarly research in universities?'. This concern is discussed in policy implications in chapter 9.

Another academic hints at the different criteria of academics and practitioners for judging the success of research:

> "It depends on the criteria. If the project is to be measured against its practical utility to the organisation or industry, then more efficient practices, patents and perhaps articles in practitioner-oriented journals would be good measures of success. If the criteria are based upon contribution to our basic understanding of how organisations operate and what it is like to live in organisations, then the number and quality of learned books and journal articles should be the measures of success. Taking a more pragmatic perspective, to the researchers involved, a successful project is one that helps them secure better jobs." (AC 05).

Therefore, the chosen criteria for indicating the success of research collaboration seems more complicated than just the measurement of the success of a research project which is done only against one of the practitioners' or academics' criteria of success. In other words, the judgement of the success of a collaborative research project includes an additional criterion of gaining mutual benefit on the part of both sides of the collaboration at the same time.

Reciprocity

The notion of the importance of reciprocity in collaboration between academics and practitioners is another theme which came out through this research. The majority of academics suggest this factor as a characteristic for a successful collaboration. One of the academics reflects on his many years experience of working with practitioners within industry and emphasises:

> "...one of the issues which we believe strongly in is doing research in such a way which provides reciprocity. We provide something and they provide something and an adult relationship requires reciprocity, it means that both parties have to get something . If it is reciprocity, it has to be something for both parties. We are very sensitive to that, because our research is dependent on getting good quality. If they give us the information, what do we give back

to them?... we can offer to run them a workshop and feed back the results of our research." (AC 11).

Learning process

One of the core findings throughout this study is a hidden component of research collaboration between academics and practitioners which is called the *learning process*. The learning process can be discussed from different aspects. For example, what is the nature of learning for academics and practitioners? What is the benefit of this learning for both sides? According to the views of the majority of the academics who participated in this study, learning was referred to as a two-way process between academics and practitioners during collaboration. Some of the academics attested that there is a lot of management research in which academics try to find out what managers are doing, for example, in the area of best practice. Then, these are academics who investigate different aspects of that practice, codify it and possibly develop the concepts which reflect the practice of other managers in future.

One of the academics refers to this two-way learning process and explains:

> "Good management researchers learn at least as much from managers as they teach them, it is quite reciprocal in the way." (AC 02).

Another academic explains his experience of working with practitioners in terms of its complexity, and the process of learning for working together:

> "...this {collaboration} is not an easy process, so I am not trying to persuade you here that it is easy, it is difficult and quite challenging. There is quite a lot of learning and skill to try to make sometimes quite small steps. I think many researchers, even in quite applied or policy related areas, have quite severe difficulties in getting their work accepted and a lot depends on the personal skills of individuals to do that..." (AC11).

This academic refers to some of the factors which from his point of view can help a two-way learning process through research collaboration:

> "I am trying to summarize a lot of key factors very quickly here to give you an impression of what I think are some of the key issues: 1) the critical issue is the problem you start with; 2)the credibility of the people who do the research; 3) the form of organisation you use to project the research; 4) the foreign policy that you have for working with other organisations in the field...the crucial role of reciprocity and the importance of research methodology. We tend to use a methodology which means we get very close to the companies, for example we carry out comparative case studies, we are not sending out questionnaires through the post, we conduct personal interviews and personal interactions. So this helps as well between two parties to get

confidence in working together. These are some of the things that can help and speed up the process of learning." (AC 11).

Discussion on the nature of learning through the process of 'working together' as a pre-outcome (my term) of research collaboration is developed through case studies in chapters 5 to 8.

Research policy and collaboration

There still appear to be other aspects to the policy of involving non-academic users in the process of management research. One of the policy-makers whom I interviewed in the ESRC indicates the present research policy on collaboration:

> "I think the best way that I can say we do is to encourage and facilitate collaboration, and after the 'White Paper' we certainly have concentrated on a policy whose its objective is to ensure that the research we are developing would be relevant to industry, business and commerce..." (PM 02)[6].

But this new policy of the ESRC does not tell the whole story. If we go deeper than the surface, we can see other considerations which have to be noticed:

> "...I mean there are quite a lot of debates particularly when you are involving with industrialists, some of them representing companies with a very large R&D budget and significantly larger than all of our budget. The managers say academics are looking beyond present, have a longer term consideration and we are aware that the research can be done only in the academic community, but we are not familiar with what it is. Sometimes they ask for partnership when they have got their own ideas and need the advice of academics." (PM 02).

And when it comes to the Council's criteria for funding collaborative projects, there are some considerations which come into account:

> "...even in a collaborative project we must be sure that the results are not so close to the market and not of a very commercial value to a particular user. In other words, the results must be in the public domain, and valuable to other organisations to see how they benefit from it. Our job is to deploy public funding to both commercial and research communities. Another thing we need to make clear is that any collaborative research that says it involves a particular sector of industry, must benefit the sector as a whole rather than benefit a specific company...we need that collaborative research people, if submitting their proposal, demonstrate in their application that their work will be of interest to commercial, or industry users of their research." (PM 02).

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[6] This policy-maker was the head of international office/management, social policy and law research support team.

Almost all of the academics supported the above criterion of funding by the ESRC in terms of benefiting a community or sector as a whole rather than a specific company. One of the academics hints at this criterion and explains:

> "I think there is a reason why the government should fund my research which is that the results are useful to whom the research is disseminated, and the nature of the way that research is disseminated means that to reach the people in this country first. So, I think there is a kind of project like one we are doing that requires government funding because its benefit is in the national rather than an individual organisational level. So, if the government says: 'go and find joint funding from individual organisations', we could do it, but the other organisations would not want us to tell other people about our results until sometime later because they have individual benefit from it, and then, it could be less than beneficial to community."(AC 12).

Although the ESRC research policy encourages academics to think about engaging the non-academic users in their research so as to fulfil the ESRC's criterion for submitting the research proposal, there are several barriers and limitations, as were discussed earlier in this chapter. Most of the factors which limit the research collaboration between academics and practitioners are evidenced by case studies in chapters 5 to 8.

One more consideration which came out through academics' interviews in this study revealed their criticism of the ESRC. The focus of this criticism was on the procedure of involving non-academic users in the process of priority setting, and the low quality of funded projects:

> "I think the trouble is that in order to set priorities you have to be able to see everything, to know every thing and that seems to me a methodological problem. Who is it that can set priorities sensitively? I think the matter of the problem is about priority setting, because they need to do something, but it is very difficult because if you ask for companies to send along someone who will help you to set on priority, who are they going to send? They are not going to send their busiest person, they are probably going to send someone who they need to get out of the way. So quite often the industrial participation in priority setting is not of a high quality, because someone they send might be a very nice person, but they are not really core in what is going on in the business..." (AC 16).

Another academic refers to the quality of the ESRC-funded research and suggests:

> "...I know it sounds trite, but I think it is really much of backing the quality of people, when you've got to my age you know whether people are of quality or not, but the question is how you can find a new quality of people by having a track record. I personally think that the ESRC waste a lot of money, and I think a lot of research funded by the ESRC is not particularly valuable." (AC 01).

Another academic explains his view about the procedure of funding research projects by the ESRC.

> "...I think we have a problem with the social sciences. Firstly the projects that have been funded best have been the ones which look clear and the ones that look clear produce boring results, because social life is not clear. The projects which are complex enough to tell you something useful, do not look clear so they do not get funded, and therefore the funding produces boring answers. The ones that could have produced interesting answers do not get funded. So, you get a vicious circle by which you get more and more boring stuff funded...I think that a lot of the social science that has been funded by government has been completely useless."(AC 12).

Although the above judgements about the low credit and poor quality of the research projects which are funded by the ESRC are not general, they signal the existence of a problem in this respect which cannot be ignored by the ESRC.

Conclusion

This section was formed by a discussion on data gathered from supplementary interviews in the study. This data was categorised under different topics of diversity of research collaboration, the multi-faceted nature of barriers and limitations to research collaboration, research collaboration and consultancy in management, success of research collaboration, learning process, and research policy and collaboration. The analysis of data in section one shows the multi-faceted barriers and limitations to research collaboration from academics' point of view. These barriers and limitations can be arranged into three different groups.

The first group comprises general factors such as the nature of academic research in terms of its orientation, objectives and the level of analysis, different time-scale (short-term), and diverse expectation of managers for solving their problems. The intangible nature of the product of management research compared to production of academic research on R&D in science and technology, and different agendas of academics and practitioners for doing research are recounted as the other examples.

The second group includes more specific elements, for example, the barriers of academic language, weakness of academics' skills for presentation and communicating their research findings with practitioners, and low level of managers' education.

The third group contains the issues which can be categorised under the topic of barriers and limitations of surroundings, such as existence of an anti-intellectualism

culture among managers in Britain, and the low quality of management research within British universities. Academics in this study suggested different ways for overcoming some of the barriers which were discussed earlier in this chapter. Although those practices can reduce the specific barriers to research collaboration, general limitations are not easy to be reduced by applying particular mechanisms in a micro-level decision-making. This group of limitations need to be challenged through a process of policy-making at the macro-level.

The academic's views on the barriers and limitations of research collaboration led to their suggestions on research collaboration, and consultancy in management. The responses of academics to this question (cf. Appendix 1-B). have been summarised into two distinctive grouping of advantages and disadvantages of consultancy from academics' point of view (Table 4.1). As discussed earlier in this chapter, the focus of academics who showed a positive approach to consultancy, was mostly on the practical side of consultancy services, and the opposite group who developed the negative points about consultancy emphasised the different quality of academic research, and consultancy in terms of its depth and neutrality. One point which is worth noting is the different nature of consultancy services which is offered by academic researchers, and the services which are provided by consultancy institutions. For example, when academics see consultancy services as an effective means of practising a two-way communication and the first step for building-up close relationships and developing collaboration in future, it seems that they refer to academic consultancy rather than consultancy services in general.

The findings show that the focus of the academics in their explanations for success is mainly based on two points. The first point indicates the importance of considering non-academic collaborators' views for judging the success of research projects which have been carried out with practitioners' involvement at different stages of the research. The second consideration is acknowledging the differences between the criteria by which the success is judged by each side of collaboration. The presence of mutual interest of both sides on the subject of research, and gaining a good outcome by both academics and practitioners, were the main themes which came out from the academics' explanations about judging the success of collaboration. The importance of reciprocity in the process of involving non-academic users was emphasised by different academics in this study as one of the factors for the success of collaboration. Building-up relationships with practitioners through different channels, for example organising different training courses and workshops for managers, involving members of MBA courses in academic case

studies, or offering consultancy services to different organisations, were suggested by the academics for reducing some of the barriers to research collaboration, and increasing the success of engaging non-academic-users in the process of research.

Learning was another theme which came out through this preliminary discussion on the nature of research collaboration between academics and practitioners. The essence of academics' view in this respect indicates the importance of learning on their side. The significance of this learning is referred in connection to the complexity of research collaboration with practitioners, and the skills which are needed to be involved in this process. The findings of this study showed that learning is a two-way process. The reflection of the practitioners' experience of working with academics which is discussed in chapters 5 to 8, reveal the importance and sensitivity of this concept.

One more consideration is that of research policy. Although the data gathered for this study supported the intention of the ESRC regarding the policy of encouraging collaboration between academics and practitioners, it showed the existence of different problems from both policy-makers' views in the ESRC, and academics' prospects in universities.

The next section attempts to place the finding of this part of study in the wider literature on related subjects.

Section Two

Findings and literature

The findings of this part of the study which were discussed in section one shed light on different considerations which have to be taken into account in future study of research collaboration between academics and practitioners. Although the analysis of data was mainly based on academics' views which was acquired through supplementary interviews in this study, it shows a potential ability for integrating into the wider literature.

This section aims to place the findings in the context of both the related literature which were discussed earlier in chapter two, and the new domains of literature which were studied later, regarding the outcome of data analysis and also the recent publications on the relevant subjects. The core part of this section suggests a new approach to the study of research collaboration by placing the findings in the wider

context of production of knowledge. The main themes of study are also integrated with the existing literature.

Research collaboration, and production of knowledge

Discussion on the production of knowledge is the wider literature in which research collaboration can be accommodated. My study reveals a connection between the type of relationships between academics and practitioners and the chosen type and methodology of research by academics. The existing literature on the diversity of research can be applied to research collaboration. The main typology of research normally comprises three different models of basic, strategic, and applied research. The distinction between these models is mainly identified in terms of their principal goal, the mode of dissemination, and the prominent audience of research. This has been argued that on a continuum going from 'theory-oriented' to 'action-oriented' there are many types of research, not just one. There does exist a sharp contrast between those approaches aimed at purely academic or theoretical problems, and those concerned more with 'day-to-day' difficulties of management in practice. Clark (1972) has suggested a typology of research which is based on three dimensions:

1) Is the research concerned with clarifying and resolving theoretical issues, or with solving a practical problem in one enterprise?

2) How is the research disseminated and diffused? Through learned journals? Or reports to sponsors in the organisations?

3) How is the researcher involved with his audience? Is it a single case, where only one audience exists (e.g. members of the scientific community or the research sponsors?), or a multiple case where the researcher is both solving a practical problem and contributing something to our knowledge base?

Combining these dimensions produced five types of research, with a sixth and more recent approach which has interest and relevance for management and social science research (Bennett, 1983). These include pure basic research, basic objective research, evaluation research, applied research, action research and the new paradigm research. The aims of these types of research projects are different and so are their methodologies in some aspects. New 'paradigm' research which is a recent addition to the range of approaches adopted for management research seems to be

more suitable for our discussion on collaborative research and exploring a suitable design for a better relationship between researcher and researched. The new paradigm research claims that research can never be neutral and that even the most static and conventional research exposes needs for change in what is researched. Bennett (1983) adds that this type of research is a mutual activity of a 'co-ownership' form, involving shared power with respect to the process and outcomes of the research. Another typology has been suggested by Blumler (quoted in Skolnick, 1995) who identifies three research models of interaction and believes that all researchers may at one time or another engage. These models have been categorised as critical, meliorative, and administrative, and the distinction between these models is identified in terms of different prime goal, main interest served, status, relationship to 'real world', attitude to practitioners, and strategy. For example, the 'prime goal' of the critical model has been identified as theoretical excellence, and for the meliorative, and administrative models, policy influence and utility, respectively. Regarding the 'main interest served' a distinction has been made in terms of 'academic', 'public' and 'particular' (Skolnick, 1995). These three models can be related to the main typology of basic, strategic and applied research. In practice, it seems that the possibility of collaboration between academics and practitioners can be affected by the chosen type of research. For example, in a research whose aim is producing knowledge in pure basic research, the situation is different from when in action research the main purpose of research is to improve the stock of knowledge for the sponsoring organisation. In this situation, open and trusting collaborative research may be more possible than in pure research which is mostly of academic interest. So, it can be suggested that there is a relation between the type of research and the different forms of research collaboration between academics and practitioners in management research.

From a wider perspective, Gibbons et al. (1994) suggest the emergence of a new mode of knowledge production, namely Mode 2, which is evident in the natural and social sciences. The main characteristic of this new Mode of production of knowledge is its practical context, whereas the Mode 1 is distinguished by its academic-oriented context in which the focus is on the interests of the academic community. The other attributes which have been chosen for comparison between Mode 1 and Mode 2 (Ibid.) suggest that Mode 1 is disciplinary, and is characterised by its hierarchical and homogeneous nature, while in comparison with Mode 1, Mode 2 is transdisciplinary, and is distinguished by its heterarchical, and heterogeneous characteristics. Social accountability and reflexivity have been

identified as characteristics of Mode 2 knowledge production. The analysis of data through section one of this chapter provided us with an understanding about the distinctive nature of research collaboration, in comparison to traditional academic research. Doing research in collaboration with practitioners was asserted as a complex process which requires extra skills and abilities to proceed, both on academics' side, and on practitioners' side. Good communication, and presentation skills for academics and competency of practitioners for working with academics and absorbing the outcomes of research in different stages of a project, are examples of these requirements.

Although the majority of academics in this study gave the first priority to teaching and doing academic basic research as the main responsibility of academics in universities, they verified the notion of the changing role of universities and the concept of coming closer to non-academic users' communities and considering their needs in carrying out academic research. We discussed earlier in chapter 2 the changing role of university research and community expectation and referred to the new approach of defining the aims of higher education as being responsible for providing a 'public service function', and the shift towards a new entrepreneurial relationship between university, industry and government (Salisbury, 1993; Smilor, Dietrich, and Gibson, 1993). We also reviewed the criticism of this notion by which the negative aspects of increasing the formal collaborations between university and industry had been informed (Feller, 1990; Macdonald, 1992). A danger was reported in terms of shifting academic researchers' focus from their main responsibility in universities to acting as a supplier of a collective good which is named scientific and technological knowledge (Feller, 1992). Our study supported a similar diversity among academics' views about directing their research closer to users' needs within the non-academic community. The main emphasis of the opposing group was on the importance of the quality of academic research which may be threatened by this shift.

Massification of higher education is another trend which has been related to Mode 2 production of knowledge. Gibbons et al. (1994) identify ten shifts by which the massification of higher education has taken place in most industrialised countries. Alongside other elements, growth of problem-oriented research comparing to curiosity-driven studies, decline of primary knowledge production, and broadening of accountability are the most relevant factors of these shifts to our study of research collaboration. Again, what is happening through these shifts is a change in the primary goal of doing academic research, its approached audiences, and the

way of dissemination of results. Etzkowitz (1991) suggests the emergence of a 'second academic revolution' in academic practice and norms.

Skolnick (1995) through a review of the workshop on the 'uses of social science research' which was organised by the ESRC's Programme on Information and Communication Technologies[7] (PICT) reaches two conclusions:

> "First, it identified the emergence of a new model of social science knowledge exchange. This is characterised by the active and deliberate exchange of knowledge between producers and users and by a collaboration between them that effectively transcends the distinction between knowledge production and knowledge use. Second, it identifies major changes in the relationship between social science and organisations which recognises that social science is both created and used within a constant interplay between the definition and solution of problems." (Skolnick, 1995, pg. 9).

Taken together the above notions suggest that research collaboration between academics and practitioners is not only a new model amongst the other models of producing knowledge in recent years, but also is a consequence of different shifts in higher education within developed countries.

Given that these shifts are happening, and collaboration has been encouraged through research and science policy of different developed countries during recent years, we need to get a better and more comprehensive understanding of its nature. One of the effective ways which can provide us with this understanding is that we examine the practice of this process. The analysis of data in section one, illuminated the distinctive nature of this process in terms of its barriers from academics' point of view. This group is the 'partner' which is encouraged to engage non-academic users in the process of research.

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[7] Programme on Information and Communication Technologies (PICT) is a major initiative of the Economic and Social Research Council (ESRC), which aims to explore social perspectives on the rapidly evolving Information and Communication Technologies (ICTs) and inform policy debate in the field. The research is conducted by a network of six centres- Brunel University (CRICT); Polytechnic of Central London (CCIS); The University of Edinburgh (RCSS); UMIST(CROMTEC); University of Newcastle (CURDS); and University of Sussex (SPRU) - and coordinated from the University of Oxford (Edinburgh PICT, Research Report Series, back cover page).

Main themes of research and literature

Barriers

As we discussed earlier in chapter two, the problems and obstacles of collaboration between academics and practitioners are different from each side's point of view. We referred to a list of these barriers which is reported by a study on the problems of co-operation between universities and enterprises (Corsten, 1987). Although the results of this study are based on practitioners' point of view, they show a consensus with some parts of our findings from academics' statements on the same issue. The key factors which have been reported by both our study and existing literature as the main barriers to collaboration include: communication difficulties between academics and practitioners, different cultural values and consequently diverse expectations of research in terms of time scale, the priority of subject of research, and the nature of outcome of research (Faulkner and Senker, 1995; Fowler, 1984; Avveduto et al., 1990; Elden and Levin, 1991). The existing literature on inter-organisational collaboration not only shares some of these notions, for instance, language and cultural differences between different people or diverse collaborating organisations (Gardner, 1991), or the incompatibility in collaborative capability (Huxham, 1993 a), but also suggest the other barriers to inter-organisational collaboration which seems more relevant to this context. Disparity of power between the organisations or the individuals involved (Gray, 1989; McCann, 1983) is one of the concepts which can be developed for the purpose of our discussion. According to the findings of this study, one of the points made by academics by which research collaboration is distinguished from traditional scholarly research was the factor of 'working in an equal basis' rather than using practitioners only for 'access' to information. As discussed earlier, academics and practitioners are from two different organisations with two different cultures which hold diverse values. The different culture and orientation of these two groups, from one side, and the different nature of research as a distinctive activity which needs special capabilities, from the other side, produce a complex situation in terms of disparity of power. The characteristic subject of management research is an additional factor which expands this complexity. It has been suggested (Bennett, 1983) that the process of research and managerial process are similar. Management and decision making are both processes which are concerned with objectives. Problems arise and have to be solved. To do this, information must be obtained, and the chosen solution implemented and monitored. The distinctive nature of management research is also emphasised (ESRC, 1994b) in terms of the broad range

of specialisms, interests and approaches which it encompasses, and its multidisciplinary base for bringing a diverse set of perspectives to bear on particular issues. Taken together, in a situation like research in which 'working together' needs different skills, the disparity of power can be a main barrier to collaboration. Academics' main power in a situation of research collaboration with practitioners is their 'theoretical knowledge' whereas practitioners' prominent power is ' practical knowledge'. The data collected through the semi-structured interviews in this study addressed this issue. It is worth noting that there is a difference between what is named by Stehr (1992) as 'practical knowledge' and what is referred to, with the same name, in this study. He raises a question of 'how do we conceptualise knowledge and its role in social action?' And suggests:

> "In the context of a general theory of social action, knowledge can best be defined as a faculty or capacity for action, or may be described as the ability to indicate, in the case of a particular thing or process, how that thing is generated or set in motion...It is, of course, possible to employ knowledge in different concrete capacities of action, for example, as a means of power, as a justification for a decision, as a means of orientation, or as a means of rationalisation." (Ibid., pg. 2).

Stehr (1992) suggests that all knowledge represents a capacity for action. He identifies two types of knowledge. One which has been translated into action is called 'action knowledge' (*Handlungswissen*), and the other type of knowledge which from the beginning is designed to serve as a capacity for action is named 'practical knowledge'. Although the research collaboration, in some way, can be included in the definition of Stehr from 'practical knowledge,' it does not hold the same meaning of what is used in this study as the different nature of power on practitioners' side. The focus of this notion is the practice of management in the 'real world' of different organisations and the nature of this knowledge is assumed to be the factual information about the working environment in practitioners' organisations and its real problems.

From the other side, the common meaning of the word of 'power' is used here which comes from the Latin *posse* and means 'to be able', and is defined as the ability to do, act or produce and, additionally, the ability to control others (Webster Dictionary, 1970, cited by Himmelman, 1996). The reflection of academics' experiences on the question of barriers to research collaboration in section one, reveals the significance of this notion as an obstacle to collaboration. The analysis of data through case studies, chapters 5 to 8, also reports evidence of this barrier as one of the main causes of conflict through the process of research collaboration.

Interestingly, practitioners see this barrier because of academics' 'theoretical power' by which they are sometimes horrified, and academics identify the reasons which put the responsibility of this conflict on practitioners' side, for example, the low capability of practitioners in recognising the different nature of academic research, and the lack of capacity for absorbing the academic work because of the low level of their education. This notion alongside the academics' views for reducing, or overcoming these barriers have been discussed earlier in section one, and through case studies, as well.

Success

Another part of our findings through section one explains the academic' views about the success of research collaboration. As noted earlier in chapter two, a large part of literature on collaboration tries to distinguish the factors of success (Gray, 1985; Corsten, 1987; Huxham, 1993; Mattessich and Monsey, 1994; Brockhoff and Teichert, 1995). Another group of studies on collaboration investigates the factors which characterise the success of a collaboration (ESRC, 1994c; Little and Leverick, 1995; Corsten, 1987). The main consensus between our findings in this part of the study, and wider literature on the success of research is focused on the importance of mutual interest of two parties, as well as sufficient expertise on the subject of research (EIRMA, 1988). The necessity of developing special skills for management academics to communicate with practitioners (ESRC, 1994c) both for developing the relationship and building up trust prior to 'working together'(Hakanson, 1993) and also feeding back the results by accessible reports on the findings of research, are common suggestions within both contexts. Additional notions which resulted from this study show the diversity of success criteria from different partners' point of view. Our findings also identify the importance of both parties' simultaneous judgement on the success of research in terms of the outcome of research collaboration.

The notion of reciprocity is one of the core themes which came out through this study as a factor for success in research collaboration. The comparison of the linear and interactive models for knowledge utilisation can be another topic of discussion in this respect. There are two distinctive models of knowledge utilisation, a linear (or engineering) model, and the interactive model. The main components of the linear model in social sciences is said (Skolnick, 1995) to be, social science as an enterprise with producers (researchers), products (knowledge) and users. The essence of the interactive model is the notion of considering the non-academic users

in formulating the research problem, because this model sees practitioners as the 'owners' of problems.

The findings of this study suggest the appropriateness of the interactive model in conducting research collaboration with practitioners as one way of knowledge production. Coombs(quoted in Skolnick, 1995) points out:

> "Contact with users must be motivated by the view that these arrangements are the best ones for the production of knowledge. For some kinds of research, such as management studies, this is actually a requirement of the research process...The best way to do it is to participate in intimate networks of personal relationships with the relevant organisations and social groups. The formation of such networks is the strategic issue for research that seeks to address users."(Ibid. pg. 8).

The possibility of forming personal networks and using them for building up relationships with different user communities was also suggested by management academics in our study as a mechanism for increasing the opportunities of collaboration with practitioners.

Consultancy and research

The different nature of academic research and consultancy studies and the reasons for the widespread use of consultancy services rather than academic research by managers in different organisations is also a theme within the existing literature. The use of consultancy among different organisations may differ regarding the size, type of activity, and degree of competitiveness in the surrounding environment of an organisation. A set of data presented by the UK universities and industry Joint Committee in 1970 (cited in Stankiewicz, 1986) showed that academic consultants have been used by roughly 70 percent of large companies (with employment of 5000 and over) and by nearly 50 percent of companies employing 500 to 5000 people. The use of consultants by small companies was considerably more limited, but still significant: over 30 percent for the companies employing 200-500 persons, and about 15 percent for the category with up to 200 employees. According to analysis of academics' views in this study, two distinctive groups of attitudes, in terms of the advantages and disadvantages of consultancy were identified among interviewees (Table 4. 1). This can be compared with Bennett's typology (1983) which applies six different factors for comparing research and consultancy, though it shows only the extreme cases of differences. These factors are: problem, time

scale, end product, ownership of information, decision-making, academic rigour, and evaluation (Figure 4.3).

Figure 4.3 the differences between research and consultancy in terms of distinguishing factors

Factor	Research*	Consulting
		
Problem	Mainly fashioned by researcher. More open-ended, especially in exploratory research.	Fashioned mainly by client, sometimes on joint basis.
Time Scale	Usually flexible.	More tight and rigid.
End product	New knowledge and new theories + ? better practice.	Better management practice.
Ownership of information	Usually publicly available.	Often confidential.
Decision-making re main task	Focus may change at researcher's discretion subject to plan.	Discretion limited to main task only.
Academic rigour	Methodologically tight.	Minimum level appropriate to problem.
Evaluation	External - by peers in scientific community, policy-makers.	Internal - by company.

**Applied research may, in certain cases, be seen to take on attributes of the consultancy approach. When this happens, and when problem definition and solution are tackled on a mutual basis, the label 'action research' is sometimes used. However, action research involves changing that which is being investigated- conventional research does not.*

Source: derived from Bennett (1983, pg. 18).

The main factors which are common in our findings and Bennett's comparison of consultancy and research include: different time scale, different nature of problem in terms of specific or general, and academic rigour. Distinctive factors which are suggested by the academics in this study consist of the different nature of outcome of research and consultancy for users, and the cost of using research or consultancy for practitioners. The intention of using each group of services, for example, utilisation of cheap consultancy by policy makers for supporting their decisions is

pointed out as the disadvantages of using consultancy, and the positive role of consultancy for building-up relationships with practitioners for future opportunities of collaboration are reported by the academics. It is worth noting that the latter explanation among the other factors seems confusing, because the reference to the advantage of consultancy in this respect can include only the consultancy services of university academics. From this approach, academic consultancy and research collaboration can work as complementary services for building-up relationship and trust in working with practitioners, and increasing the possibility of engaging non-academic users in the process of research. Learning through the process of research collaboration is another factor which make a distinction between consultancy services and this type of academic research.

> "However, even if the best practices for each of the interfaces could be clearly stated and conscientiously followed, the ultimate success of the schemes could be jeopardised by exaggerated expectations of quick results or the indifference of the universities. The university-industry interactions must be viewed as a process in which learning is the key factor. Even the best conceived structures will not produce quick results." (Stankiewicz, 1986, Pg. 25).

As mentioned earlier, the nature and importance of the process of learning from both academics' and practitioners' point of view is discussed through our case studies.

To sum up, the discussion through section two of this chapter built upon the reflection of our findings from all supplementary interviews with academics and policy makers in this part of study on the wider literature, and vice versa. This aim was accomplished by using all materials of mapping and review of the literature in chapter two, in addition to the other relevant literature on the subject of research which became available later. The framework of discussion in this section was formed around two main issues: research collaboration and production of knowledge, and the main themes of research and literature. This challenging discussion revealed the potential ability to integrate our findings into the wider literature.

This chapter began with an aim of developing a preliminary discussion on the subject of research collaboration between academics and practitioners. The discussion was mainly based on the analysis of data gathered from supplementary semi-structured interviews with management academics in different universities around Britain. The outcome of this chapter not only provided a wider perspective of the subject of study, it also enriched the analysis of case studies by considering

appropriate themes. The three following chapters (5 to 7) include the case studies of research collaboration between academics and practitioners in which the main themes of research are examined by the viewpoints of both sides of collaboration. These case studies are completed through a cross-case analysis in chapter 8 which suggests a framework for comparison of cases in terms of the main themes of research.

CHAPTER 5
CASE 'A'

This and the two following chapters will discuss the different approaches of management academics and practitioners through analysing their experience of 'working together' in these cases. The focus of the interviews with both sides of collaboration was on the specific research questions: What is their definition of research collaboration? How did they come together? What was the motivation of each side for coming into collaboration? What happened during the collaboration? What were the barriers to collaboration? What did they expect to get from their collaboration? How did they indicate the success of collaboration? In view of the diversity of these cases some other questions have been addressed in each case.

This chapter attempts to portray the process of research collaboration between academics and practitioners in case 'A'. Mainly, effort is made to reflect the perception of involved collaborators in this process.

Case 'A' is a two-year research project which started in June 1993. The methodology of this research is a two-level approach[1] comparative case study. It looks into the development of collaborative relationships between customers and suppliers within the area of human resource management and development. Two senior researchers were involved in this project., which is mainly based on the findings of the two pieces of research which had been conducted earlier by the principal researcher and his colleagues. The case studies were supposed to be plant based and varied in terms of size and industry in order to ensure a reasonable spread. It began with interviews with some 25-30 organisations. The second tier of case studies were centred on 6-8 plants. The previous work of the researcher and his colleagues

[1] "...a two-level approach to the case studies will be taken. The first, or upper level of the study will involve interviews with some 25-30 organisations...our second tier of case studies will centre on 6-8 plants..." (derived from the research proposal submitted to the ESRC).

suggested that the studied phenomenon is not confined to large companies or to particular industries. Multi-site companies were included in the scope of this study.

The academic side in this study is a management and business studies department in one of the well-known universities in Britain and the principal academic researcher is an experienced professor who was head of the department at the time of interview.

The research site in my field work was one of the 6-8 companies which had been approached by the academic and his colleague for deeper case studies. This company is a multi-national world-wide corporation in the food industry.

This project was an ongoing one when the academic researcher and one of the practitioners were interviewed. In this case, the contact with industry had been planned at two or three levels.

'The Principal Researcher described these levels as follows:

> "One of which is the kind of standard thing, where either by making telephone contact or by writing or by questionnaire by survey, we are making contacts, but there is no real doubt that we are collecting information.
>
> Second stage which probably is also shorter collaboration in any real sense is where for example we are involved in case study work, but the case studies themselves will be limited and probably will be no more than one or two visits and talking to different people.
>
> But, out of that case study work, the intention in this project was that we would in fact work more closely over a period of time with some cases which appeared to be particularly interesting from our point of view and where the management people were interested in what we were doing and I think that in that sense we had a limited range of cases. We have ongoing contacts where we are feeding the results from our work into them, and they are commenting on this, and I would say in that limited range of studies (our case studies) we are actually involved in the process of collaboration with practitioners, I would certainly call it an area of collaborative research in the social sciences. The other ones are not too collaborative, they are simply interactions of some kind." (PRA).

What seems common in such a case is applying the combination of different levels of co-operation between academics and practitioners and not just a single framework for their relationship.

As was discussed in chapters 1-4, there is a continuum of different patterns or types of collaborative work between academics and practitioners. Sometimes the criterion for different types of collaboration is defined in terms of duration of time in which both of the partners are working together within that framework. The kind of

activities which they become involved in is another aspect of the diversity. For example, it can be noticed that making just telephone calls for contact with practitioners and asking their co-operation for filling in the research questionnaire is different from doing case studies in the research sites or other depth studies with the involvement of practitioners in giving comments on researchers' feedback of research. However, what comes in the following lines is the views of both sides about the different aspects of this collaboration. These viewpoints have been portrayed through the analysis of their answers to the research questions.

In this case, collaboration between the academic and the involved practitioner had not been started from the first stage of preparing the research proposal. But as the researcher described, he had a stronger relationship with this manager than the other research sites' participants.

> "...and we have worked quite closely and from your point of view he is the best person to contact...I would regard that as a good example in the kind of relationship that we should try to develop." (PRA).

So, regarding the focus of the study which was on the process of collaboration, I decided to interview the Collaborator Practitioner in case 'A' (CPA) who was supposed to have more involvement in this research and therefore more information on the process of this collaboration. This practitioner was an experienced person in his field and the director of the planning logistics department in the central office of his company. This company was working on a world-wide basis in the food industry. Here is the place that his attitude to management theories and management research could be of interest to the academic researchers in management discipline.

> "...there are several things, one is that it is not evident now what are the management theories which are guiding the way the industry is going, because industry tends to be moving very fast at the moment and changing a lot. But it is not evident that it is following any theory, I mean the classic example of this is 'in search of excellence' in the 1980's and it said: look, these are the lessons that you ought to follow if you are going to have an excellent company and they had examples of the best practices and the best companies, then at least 50% of these companies are now in major trouble. So, is that because they were following these practices or is that because in the real world what affect companies are beyond the control of a lot of management practices? And you now got a situation where many companies are following the theory that what you need to do is to reduce levels of management and flatten it, and have all sorts of groups working on the projects. So, you do not have the traditional functional structure and that this is now going to lead to a slimmer, faster, more effective operation and all I would say is that: well, it is not proven that it is going to be any more successful than the rules of 'in search of excellence'." (CPA).

This can be an example of managers' thought about the different nature of the practitioners' and the academics' world. They believe that the world of industry is not only based on the outcomes of their practices but it is dependent on many other factors which are beyond their control in a changing world. It can be asked, when they are not sure about the positive impact of the recommendations of management theories on the success of their companies, how they can believe in the benefit of the research collaboration on management. Regarding the changing climate of companies' surrounding world, it seems that they do not think very seriously about asking for help from either universities or government for their management problems. The Collaborator Practitioner referred to some points in this respect:

> "...maybe business survival in the medium to long term is Darwinian in the sense that some of the fittest survive and what makes you fit at one point of time makes you think what makes you fit in 20 years or 30 years time, so if the climate changes, then may be the big dinosaur does not survive under a smaller operation. But it is not evident that a firm would go to a government or university for advice and guidance on how to manage." (CPA).

Economic and technological changes have repeatedly been recognised as an incentive for attempting collaboration in different variations. Gray (1989) discusses seven incentives for formation of alliances, one of which is rapid economic and technological change. She points out that the collaborative responses to the different incentives are not the same. Inter-firm joint ventures, business-university consortia and public-private partnerships have been categorised as the collaborative responses to the incentive of economic and technological change. So, what is the reason for this contradiction between the general consensus on the benefit of collaborative work for overcoming the turbulence in a changing and competitive situation and the above statement of the involved manager in the studied case of research collaboration? Why do the business people prefer to carry out their research on an in-house basis or in collaboration with other companies? If they come into a situation of collaboration, what are the main considerations? Analysis of data gathered for this case attempts to answer some of these questions.

How did they come together?

There are different routes which bring academics and practitioners together. Sometimes, it happens to be a direct contact between the two and in other situations we can trace the existence of a third party.

> "If you take the relationship with 'PR', he was doing the research and he wanted to get some additional contact in industry and he approached the Article

> Number Association and then they put him in touch with me. So, that is how we met each other" (CPA).

As we see, the direction of relationship is from university to industry and the nature of contact is informal and with the intervention of another organisation different from university and industry. Regarding the data gathered for the study, this route of contact seems to be one of the common ways of coming together for university and industry in order to do research.

Motivations

What were the main motives for this practitioner to collaborate with the academic researcher? What was the impact of the practitioners' previous experience in this type of working together, on ongoing collaboration and future situations of collaboration? This practitioner explained his previous experience of working with another university on the similar research subject:

> "when it was the contract with MIT, how that came about was that there was a huge project called management in the 90's which was funded by some universities mainly the MIT, and part of the American government, for example the US Department of Defense, and the US Internal Revenue Service were involved, and then the suppliers of the information technology including the ICL in the UK were involved and that was how I came in touch with that and then there were various big firms like Kodak, General Foods, etc., and they were all trying to look at management in the 90's together and the particular focus was on business networking. So, how I came into touch with that was by having spent a lot of time developing supply chain management in the UK, and developing electronic data interchange in the UK." (CPA).

It seems that the personal interest and the relevance of practitioner's professional background to the research subject could be one of the important motives for entering into collaboration with academics.

So far, the presence of three factors seems obvious in forming this collaboration: informal contact through a familiar organisation (Article Number Association) for both collaborators, previous experience of working on the same subject and the personal interest of the practitioner in exploring more information and knowledge on the area of supply chain management. The practitioner's reference to his previous experience of working with academics on the same subject is clearly obvious when he explains the area of research on which he is working with the academic in case 'A':

> "I knew people in the ICL and they said to me: look there is this professor from the MIT coming across to the UK, an Indian who now teaches at the Boston

> University, would you like to meet with him and talk to him and then we started talking and then we agreed to do some joint research about supply chain management and business partnerships. So, it was similar to what 'PR' is doing, but it was more focused on the technical side of what data companies would exchange and how would they exchange it, whereas 'PR' has got a symbol focused on partnerships, he is interested in the human resource side in particular. So, that is how that happened." (CPA).

But there are other invisible factors in this process, revealed by requests for more detailed information:

> "Well, since it was professor 'PR' who approached us to have some insight that would help his research, in a sense I was trying to be helpful. Now I suppose I have to be honest, if a professor had approached out of the blue, a university I did not know, then I might had thought twice than since I heard of professor 'PR'. I was far more positive because I had studied in that university. I did not know him, but we both know the same people in the department. The second thing that caused this was my interest in it, because I was involved in supply chain management from ten years ago and I have been lecturing about it and therefore I am interested in anything which moves the thinking forward..." (CPA).

Among all these reasons which seem to have played a role for attracting the interest of the practitioner for entering into collaborative work with academia and the principal researcher, mutual interest in the research subject comes out as a major factor.

Therefore, exchanging the information about their mutual interest, practitioner's professional background and his familiarity with the research institute (the university which he had studied at before) might be a kind of input to the process of this collaboration.

> "...what is your enterprise? what is internal, what is external?... so, anybody who wants to talk about that, I am interested in. Talking about it having started discussions with 'PR', and his insights into the human resource side that was of interest to us. That is why we wanted to do that and I think also what I was trying to think through and probably convinced him was that planning and the ability to plan well and the ability to exchange plans is fundamental to a partnership. If a planner is not organised well and is not capable of exchanging these with customers and suppliers, then, he will not be a good partner. It is not just the case of being capable of exchanging data like what is the specification of product and what is the quality control test...I wrote a paper on managing the virtual enterprise..." (CPA).

What happened after they came together with their different motivation for collaboration? As mentioned before in chapter two, the literature on collaboration between university and industry shows a spectrum of different forms of working together. As will be seen throughout the cases studied, there are not only different

variations from case to case, but there could even be a combination of various forms of involvement in carrying out the same research project. This research project was one of the cases where according to the academic's explanation, the contact with industry had been planned at different levels, from just telephone contact to limited case studies and finally at the highest level which was close involvement in the process of collaboration. The practitioner who was interviewed was involved in one of the cases in the last category.

How did they work on the research project? What were the kinds of relationship between the academic researcher and the practitioner and his organisation?

> "...so, we put professor 'PR' in contact with one of the supply chain directors, so, he could talk to him about his views and indeed the next time I see him, he will have been to this supplier's premises to look at what they are doing." (CPA).

The importance of communication has been argued as a key factor of success through the process of collaboration. Different mechanisms for communication can be chosen each of which may consist of several options for increasing the possibility of closer relationship. An effective communication mechanism has to be a two-way and progressive process in terms of developing a better mutual understanding of the research problem.

> "...we have had three meetings by now and we have exchanged letters. So, he {principal researcher} sent me a summary of these conclusions and then we wrote back some comments on that, and then I have sent him some materials on partnerships and we are meeting again at the end of next month, for him to talk with our supplier and also to discuss how far we have got to." (CPA).

As the above statement shows, different ways of communication had been used in this case, but how effective were these mechanisms? Regarding my question about the practitioner's expectation of this research collaboration, and his answer, it seems that the process of interaction and its effectiveness could be more complex than it looks at the beginning.

> "I am expecting a feed back, but you see, I do not have any formal understanding as to what 'PR' is going to give us. I mean in a sense we have been helpful to him and we hopefully would learn something." (CPA).

The above statement can be an indicator of the lack of an effective communication. In other words, this is a gap in the process of research collaboration that the collaborating practitioner is not aware of the outcomes of the collaboration for his organisation. The low expectation of the practitioner from this relationship with the academic is revealed when he attests: "I mean in a sense we have been helpful to

him and we hopefully would learn something". The reasons for this low expectation of users of social science research compared to the users of natural science research (as shown in the literature) needs more investigation in future.

Is there any relationship between the motivation of research collaboration for practitioners and their expectations of this involvement?

> "...well, that we would learn more about what other companies are doing, that we would get people like professor 'PR' to look at us with different eyes, have a more systematic view and look at what we are doing and say: well, have you thought of this or that, it does not seem to be as well thought out as it might be, and it is just the fresh intelligent set of eyes and the ability to relate to what other people are doing." (CPA).

Therefore, we can see that the main motivation of the practitioner for involvement in this project is based on a general expectation of academic research. Gaining fresh knowledge on the research subject, and learning about other companies in the same field through academic's research project are some of the variables which are identified by this practitioner.

Preference for consultancy to management research collaboration

Why do some of the managers not believe in management research as a solution for their problems and usually prefer going to consultants? As argued earlier in chapter four, there are different angles to this discussion. The following statement is one of the samples of managers' point of view towards the usage of consultancy in their managerial decisions. This section consists of the essence of the explanations given by 'CPA' about the above notion through the different parts of the interview:

> "...nowadays if you do not know what to do or you know what to do but you think it is going to be difficult, you would use consultants. So, you go to consultants when you do not know the answer or you know the answer but you want somebody else to take the blame for implementing it and companies spend a lot of their money on consultancy, millions." (CPA).

What seems interesting are the different hidden reasons for using the consultancy services. As is revealed in the above statement, the incentive for this interest is not always finding the solution for an organisational problem, though it might be politically helpful from manager's point of view to prove the credibility of their decisions.

The different purposes of academics and practitioners for doing research are again completely obvious in this respect. When 'CPA' mentioned some of his reasons for preferring consultants' work to academics' research, this difference was apparent.

> "Consultants come supposedly with previous experience in not only what is the nature of the problem but what are the solutions and how you implement them. I suppose in business it takes too long if you say well I am going to do this research now and then I am going to do some development and then I am going to do some implementation. What you want to do is to come in and examine the problem, implement and get it done." (CPA).

In another part of interview, this manager pointed out his views toward using the academic researchers' technical help for solving the organisational problems.

> "If somebody were to say to me if you wanted to be sure that you could get something to happen by a certain time and be delivered in action {sic} you would not naturally be thinking of going to a university to get it. You would go again to a consultant or whatever, because they are more focused and because they've only got the one agenda and that agenda is how we can get money out of you and they would get money by delivering to that contract. So, I suppose if I really want to get something out of the university, I would have a contract with them that meant me paying them money to deliver certain results." (CPA).

This statement is very revealing in terms of the practitioners' attitude to academic research, the priority of practical outcomes and the short-term preference. At this point the practitioner made a comparison between consultants' and academics' reports and their style of presentation:

> "If you get a presentation from a consultant, now it tends to be just headline words and then if you try to pursue it afterwards and work out the logic and the reason it is almost impossible to do it. If you get something from an academic it tends to be in a lot of detail and all the rest of it, therefore sometimes it is difficult to draw out action parts. Now, there must be something in between which would allow you to follow the reasoning, but still lead them to do A, B, C, D that will cost W, X, Y, Z and it would result in 1, 2, 3, 4." (CPA).

According to the above comparison which was made by 'CPA' on the advantages and disadvantages of academics' and consultants' reports, some main criteria were revealed for the advantage of the practitioner for consultancy. These can be classified as: identified objectives, clear outcomes and predictable costs. Is it only because of these reasons that practitioners prefer consultancy to academic research or could lack of information about academics' works and weak networks between academia and the 'outside world' be the reason for this preference?

> "...but I think that we should do more thinking about the future and more reflection, but the difficulty is how do you find out who is doing what, and I have no easy means of knowing which universities are doing what research on what topics, nobody tells you." (CPA).

This is one of the points which the practitioners whom I interviewed complained repeatedly about. Thinking about the suitable mechanisms for an effective way of communication between academics and practitioners can be an urgent need. They not only need to be aware of each others capabilities, but they have to get opportunities to learn about the other sides' purposes and expectations of doing collaborative research. For example, when 'CPA' emphasised this notion that: "If you have not got a lot of time and you want to move to implementation very quickly, then sometimes it is important to know less and do more". It is certainly a different approach from academics for whom knowing more about the research subject is the most important part of their involvement in research collaboration.

This manager developed his approach about the academic researchers by giving an example of his previous experience.

> "They are learning something from you, they are not focused just on that discussion because the academic is thinking of what this means for the publication and the university involvement which is not of direct interest to business, but nonetheless is relevant to the way things are done. So, what then we tend to get out of the discussions with the academics is part of what they are doing." (CPA).

Through the following statements we can find out some other aspects of the different world of academics and practitioners and their perception of research collaboration in management issues.

> "...also I think in my experience, that is not quite widely spread, it is actually quite difficult to tie down academics because they usually are pressing an agenda of their own in the sense that they live in an environment where they have the certain money that they would get for doing a contract with the government and that probably is formal. But they also got a contract with the university which requires them to research and teach or publish or whatever and the certain standards by which they are judged. When they come and do work with us you are never entirely sure what the agenda is." (CPA).

Although this practitioner pointed out that the academics' work explores some new angles on their problems, he is referring to a hidden agenda which academics bring into the organisation during the research collaboration. The manager's previous experience of doing joint research work with academics was reflecting the difficulty of this process and two different agendas of academic researchers, and practitioners.

> "When we were trying to get the professor from the MIT to deliver certain themes at certain times we found that very difficult because he had his own agenda, even when he had agreed to do certain things by certain times, it did not happen." (CPA).

Regarding the experience of this study, I found that the quantity and the quality of information from the interviewees (both academics and practitioners) is based on the extent of their involvement in different stages of research and the extent of their mutual interests. For example, if there was not any joint work at the stage of defining the main problem of research, then the practitioner could not answer my question about the nature of his or her involvement at that phase and vice versa. Therefore, it was decided to continue the interview with other questions which could be used as indicators or indirect pointers of the dominant atmosphere in that specific situation of collaboration - for example, the general perception of practitioners and academics of collaboration in management research or their previous experience of those projects, or the ways of funding academic research within the practitioners' organisations.

This seems an interesting example:

> "There may be small sums of money that I do not know about which are given to particular universities because they have asked for support for something, but I do not think it is significant. Just as in the same way we give money to the London Mozart Orchestra or we give it to some children's group, we probably give some money to universities as well." (CPA).

As we see, despite the practitioner's frequent complaint about the need for more information on academics' research interests and the possibility of closer co-operation and collaboration, on some occasions there is an ambiguity about the distinction between financial support which is given for a research project at a well-known university and the money which is allocated for helping other organisations with totally different purposes. For instance, when the question was asked: 'do you spend any money from the R&D budget on management research?', this manager stated:

> "No, they are completely separate. I mean I do not think that we would spend any money formally on management R&D, but it is quite a complicated subject." (CPA).

Training rather than research

Training seems to be one of the dominant areas of collaboration patterns between this company and the university on management fields.

> "...I mean first of all, you would have a personnel function and they {the organisation's top management} would have some money for training and development and that would include some work with outside consultants mainly, and that would be trying to train people and develop people. So, for

> example our company tends to co-operate with Warwick University which is quite good at training courses for managers. So, if you are a graduate coming to 'A' organisation{practitioner's organisation}, then you go on some early management courses, and then there is the opportunity to do subsequent diplomas on the finance side or marketing side and again Warwick University plays a part in that. So, that would be our main link on management research and development but there is more development than research." (CPA).

Two important points are raised by the above statement. First, the kind of co-operation between some companies and management departments in the universities that is more about training for development of human resources in management rather than research. It seems that in the practical world of managers, training is a more tangible area of collaboration with universities than research. Second, the nature of management research which might cause this different priority, because management research from the practitioner's point of view holds a big gap between research and development. In other words, what seems more practical for managers are the outputs which can be used for urgent development rather than research. But, if we did not have the opportunity of research for finding the causes of problems in practice, how could we improve our development programs? Although training is a more common area for co-operation between universities and industrial companies, it still does not seem a very stable situation for continuing linkage between university and industry in management research.

> "...it would usually be from the company's training budget and that tends to be one of the things that gets cut when we are short of money." (CPA).

As exploring the perception of research collaboration among academics and practitioners was one of the aims of this study, the meaning of this concept was asked of both parties. When this question was put to the academic, his first emphasis was on the research subject and its theoretical aspect, but for the practitioner this theme was not very familiar. So, the question was raised about the manager's views in general and his experience of the ongoing research project, in particular as an indirect indicator of his perception of collaboration.

> "Collaboration is probably a good word, but I would not call it a partnership because if you are selling to a customer that is not a partnership. If you have got a legal agreement with the customer which would last for so many years then that is a partnership, but there is lots of things in between...I would only use the word partnership in relation to commercial relationship, if it was my joint research project with the university, that would be collaboration I think." (CPA).

We can see that there is not a clear picture of research collaboration for this practitioner and he is too busy with his company's routine activities and cannot

focus on the research collaboration with university. This manager continued his statement and said:

> "...you would contract with a research establishment or a specialist consultant to provide certain results by a certain period of time. So, I suppose you might call that a partnership, but the word partnership as it is used in the company at the moment is very live in debate and tends to be with customers and suppliers...I mean a partnership in my view is something which is more on-going, it could have a defined limit. You could say, well, it would be reviewed every year or two years or three years, but normally you are reviewing it with expectation that it will continue - not really with a consultant or a university. You would be saying, yes, well, I have to have the following work done by the following time and then I might have another contract, but it would be for different work and different objectives. So, I would not use the word partnership for that and I think that collaboration is more suitable" (CPA).

The practitioner's emphasis on the word partnership which is a familiar term in his company shows how much the culture of organisation has affected his approach and definition.

The shortage of time for managers to read academic journals and their lack of information about the most suitable journals for their interest are the other points which this practitioner referred to:

> "...and I mean I do not read any academic journals, because I do not know of any academic journals which are good in management, and in fact if you could go on to the computer and see what are the latest articles, then that would be useful, but one thing you do not have today is much time to read. Another important thing is that supply chain is to shorten the time horizon, and maximise the added value, so you add value when you bring products into the company and then they lie and gather dust. In interest charges meanwhile the cost is rising because cost starts when you start to do designs and R&D and it keeps rising after you have sold the product if you get returned products in damages. So, your big gross profit becomes small net profit..." (CPA).

What seems to be obvious from the above statement is, again, the focus of the practitioner's attention on the main activities of his company. So, it could be one of the reasons that practitioners' interest for involvement in academic research and searching new information is also very much related to their organisations' priorities for collaboration with academics.

However, what was the approach of this practitioner for working with university in the future? Did he have any interest in continuing his collaboration with the academia?

> "Yes, 'A' university has got the supply chain group, and I met the other professor there, so he said he would like to talk to me about something else, and hopefully we would take it forward..." (CPA).

As can be noticed, a contradiction is seen between the above statement and this manager's previous words (pg. 106):

> "If someone was to say to me if you wanted to be sure that you could get something to happen in a certain time and be delivered in action you would not naturally be thinking of going to a university to get it..." (CPA).

There could be different reasons which caused him to change his mind. First, it might be, coincidence of interest between this practitioner and the university's supply chain group on the subject of research. The second factor could be the opportunity of the recent collaboration for building up a closer relationship with this university. Another possibility might be that different questions during the interview session led him to consider the possibility and usefulness of research collaboration with academics.

The final question from this manager was one checking about the outcome of this collaboration. He was asked: "Do you think that this collaboration would give you a better insight for solving your company's problems?" and his reply was:

> "Well, you know the whole world is changing very rapidly and what our customers are doing is changing very fast their organisations and their expectations for customer service, and similarly what our suppliers are doing is changing very fast. So, we need to be aware of the best of modern thinking about the way the world is going and even if we have to disagree with it, that is why in the little bit of time we have got available we read things like this {he pointed to a compact report of a management consultant group}." (CPA).

Although this statement was not a direct answer to the above question, it can be a pointer for showing a 'collaborative response'[2] to the incentive of economic and technological change. In other words, it can be an example of a positive trend of approving the necessity of bringing fresh knowledge and expertise into organisations through research collaboration with management academics. This need may create a stronger motive for industrial organisations to enter into research collaboration with academia.

Now, we go back to the story of this collaboration from the academic's point of view. In addition to the direct questions about this process which was the aim of the study, the research sought to find out more information about the perception and

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[2]See page 127 and also Gray (1996, pp. 59-60) for more explanation of the relationship between incentives of collaboration and different types of collaborative responses.

the general attitude of the academic researcher towards research collaboration. This again can be an indirect indicator of the existing types of relationships between academics and practitioners in doing management research.

Principal researcher's perspective

What does the research collaboration mean?

This was the opening question of this study which was put to the Principal Researcher (PR) of each case.

> "...I guess you would find this more in the scientific and technical areas and what we got in investment on the provisional equipment or special expertise from industry working with management or working with industry people on specific projects, what I guess is a kind of applied science and development kind of projects, and I know that happens a lot in scientific side. But it doesn't really work in the social sciences. So, I think that depth of collaboration doesn't exist. I haven't got any experience of that and in the current project we are involved in, the contact with the industry is at two or three different levels." (PRA).

The different opportunities for research collaboration in natural sciences and social sciences within industry is one of the revealing points in the academic's response to this question. This discussion will be developed later in this case. Moreover, as we see this academic does not give a definite explanation of research collaboration in management at this stage, though he has included some of the characteristics for defining successful research collaboration. Here is the Principal Researcher's answer to another question about these characteristics:

> "The characteristics of successful collaboration, first of all, should be a two-way communication. It is not the researcher always going and asking for more information and more access or whatever. The researcher has an obligation to feedback information in a helpful way to the people who are providing him with the information and should be looking for a critical comment. If you are coming up with a set of ideas on the basis of your research which seem to be rubbish as far as the practitioner is concerned, then you want to know whether the models that you are developing fit his organisation or not, so you want feedback on that. So, firstly, a two-way communication is very important, and secondly a degree of trust...it always astonishes me how much companies will actually tell you things which will be commercially damaging if they got into the wrong hands. They will just somehow accept that you would not misuse this information, getting to that point is very important..." (PRA).

The importance of communication and trust building seem absolutely vital for research collaboration because in the competitive world of industry, each piece of information usually holds a commercial value. So, in the absence of trust, access to

accurate information might be doubtful. On the other hand, two-way communication as a means for getting the practitioners' trust seems meaningful, but in practice it is not simply accessible. The following statement which was reported earlier in this case might be illuminating in this respect:

> "I am expecting a feed back, but you see, I do not have any formal understanding as to what ' PR' is going to give us." (CPA).

Motivation

What was the importance of this research and its priority from the academic's point of view? In other words, what were the motives for this academic in doing this research through collaboration with practitioners?

> "First of all from my point of view, it is clearly an area of industry interest, something was known about what was happening. There were quite a bit of research questions which needed to be answered and in particular, quite a lot was known about some management aspects. There was nobody who has done anything in Human Resources Management (HRM) aspects and also a new area of development, quite a lot of important questions which need to be answered and one new dimension to that which has nothing done about it...on which there is not quite a lot of literature and much of it is practitioner-provided research work than more academic." (PRA).

This is obviously a main prototype of academics' motives for working on different research subjects. The importance of doing an academic research on a new area of development, and finding answers to unanswered questions in the field of his study were some of the academic's motives for entering into this research project. As we notice, these motives are not similar to the practitioner's motives and the expected outcomes from his point of view .

As mentioned before the practitioner's involvement in this project, alongside the other companies which were involved in this project, had been started after the stage when the research proposal was written by the academic and was approved and funded by the ESRC. The Principal Researcher explains:

> "...a whole variety of different companies in different levels. We have done quite of variety of different kinds of survey. We have been probably dealing principally with 20 companies, but some of them have been in much more depth than others." (PRA).

What about the necessity of practitioners' involvement in all stages of the process of research? The academic's view shows that again there may be a relationship

between the nature of the research subject and the degree of closeness between academics and practitioners:

> "If you are talking about partnership, then the industrial side needs to be involved in setting it up. I think in the kind of project that we were involved in, you may not know enough about the area because there is not enough knowledge about what is happening, what kind of development is taking place and why? So, the first thing you have got to do is to find out what is actually happening there and out of that you will find that there are some contacts which you make and which are particularly interesting from the point of view of research where the people who you are talking to in industry are also interested in the research subject." (PRA).

We had the analysis of the practitioner's interests and motives in working with the academia on the same research project - learning more about the other competitor companies and an opportunity for having academics in his company to look at his problems from a different aspect. Now, it would be interesting to have the academic's perception of the other side's interest and motive:

> "Management people are themselves interested in the problems and interested in the way others are doing, and what you are finding out and how these link to their work and out of that you can begin to develop a collaborative relationship. So, it would have been much more difficult for us to go into this area without already established collaborators. But now having got some of these collaborators, if we were thinking about the proper development, then I am quite sure that we would have certainly two or three firms that would be prepared to come in with us..." (PRA).

The subject of research and its importance from companies' point of view for solving their key problems and the priority of development, production and related issues are the criteria for industry to think about the academic research. Regarding the academic's experience in relationship with practitioners, he referred to some other aspects of practitioners' attitude to management research:

> "I would imagine that in most cases, people in management looking for information or trying to solve problems in terms of things like organisations, structures, communications, risk controls, and financial issues. They are not actually going to think about a researcher's way of doing it in the first instance. If they need to develop a new version of a particular product, then they may think about research where they will get tuned to research will be if either have existing contacts with people in universities and are used to talking to them so that out of that discussion they will say, well, this is what is worrying us at the moment and we do not quite know where we are going on this and the university contact may be able to say this." (PRA).

But, how can we increase the strength of the desire, which leads to willingness of industry to enter into research collaboration on management issues?

"We could actually put in some work on this, and pull some ideas together. It might be a variety of different research techniques which could be used and that would be a kind of joint definition of a piece of work, a piece of research which we can contribute to the companies and that is a continuing relationship. The other thing would be – and I guess this happened to some extent with our project - where we are identifying something which is comparatively new and where it is clearly coming onto the agenda lists of some managers and if you happen to write to them at an appropriate time and talk to them at an appropriate time, they will actually say: yes, we are very interested in this and we were just beginning to think about what we are doing this year, yes, come and talk to us. Out of that you will get the collaboration commitment. So, in some senses it is a matter of almost luck, you can actually get the right people at the right time." (PRA).

Is this problem of access the only barrier which has to be solved to get the interest of managers in industry for involvement in academic management research? Some academics think that managers do not really believe in the usefulness of research for solving their problems. It seems that there is a need for a kind of mechanism to get practitioners' trust on this aspect. The Principal Researcher of case 'A' attests:

"I think in general, most people in management don't really think about research as a solution to most of their problems." (PRA).

And he adds:

"...in that sense {having a collaborative relationship} you are actually building up a stock of knowledge with industrial people and getting their trust and getting them believing that you are doing something which is worthwhile, and on the basis of that you may then be able to go on the further areas, which may take the form of collaboration from the start." (PRA).

It seems that there is a difference between doing something worthwhile and doing something which could solve the practitioners' problems.

Assuming the difficulties of doing research with industry on the subjects which are not of their first priorities, how did this happen in case 'A'? What mechanisms were chosen by the academic to take the interest of practitioners for coming into this collaboration?

"Certainly, in this particular case we started off with some existing contacts which we had built on, and we also added to that completely new contacts where we had no existing contacts. We were picking up information about some firms that seemed to be doing interesting things and then we chose a route into them, simply telling them what we were doing and asking them to meet and have some talk about it, and in the some of these cases, clearly the things that they were doing were of interest to us on a longer term basis and they were interested too." (PRA)

The type of contact between academics and practitioners in most situations is informal and so, it needs some additional insight into the whole possible opportunities in the organisations approached to find the right channels and appropriate people for communication. But it seems even more complex in practice.

> "So, we began to set up an interaction which is continued, so it is not a cut and dried process. You use all the informal routes, the existing contacts, you use informal contacts, you know somebody in company 'X', you know somebody who works for company 'X', but they are not in the right place or right vocation, and you can ask them, who would be the person in your organisation to tell us about this? So, you can then go to the right person. In other cases which you do not have any contacts and you have simply got to say, well, I write to who looks like the appropriate person, tell them what we are about. follow that up with a phone call and talk to them on the phone and tell them that you are interested in this subject, then you begin to get a sense of whether are they likely to be co-operative? Are they doing interesting things? Are they assigned as if they would be prepared to work with us?" (PRA).

'PRA' was asked to address the reasons, familiar from the literature on why there are more examples of collaboration between university and industry in the science and technology areas rather than social sciences. The aim of this question was to explore the characteristics of research collaboration in management issues and the practical obstacles for this kind of research, even through indirect explanations. In this exchange between the principal academic of case 'A' and the researcher, some factors were attested by 'PRA':

> "...I think if you are looking at the science and technology side, what you can see emerging from it is a hard product which you will be able to sell, and if you end up with something which doesn't work, at least you have given it a shot and you got some negative knowledge about what can be done, what cannot be done or if there might be another approach to the problem. If you are talking about the management side then you are not talking about hard products, you are talking about soft products, qualitative issues, and for qualitative issues, managers will feel confident to read what is happening in the professional journals and the trade journals." (PRA)

Sometimes the choice between the options of using research or consultancy by industry depends on the organisations' connection to different sectors e.g. the public, private or community-based sector, and the nature of the studied subject. For example the importance of policy issues or organisational problems in the public sector is different from the priority of development and production problems in a competitive environment for the private sector. This aspect needs further investigation because during my interview I found that the academic was interested in knowing how the managers make a decision to buy consultancy or to enter into research collaboration with universities.

"...they can use consultants or the whole variety of things or they can use researchers. I do not know what switches them into one or the other." (PRA).

As mentioned before, because of the importance of collecting more detailed information about the process of ongoing research collaboration for the purpose of my research and filling the gaps of some specific data, I tried to ask about the previous experiences of the academic and practitioner in the same situation. The Principal Researcher explained:

"...a lot of it is different from one case to another, but I suppose there are some common factors. I very much like doing this kind of work because first of all, it gives you a very direct contact with people in industry who are working in a particular kind of developments and in that sense it keeps you up-to-date, not for what is coming out in the journals but what they are actually doing. There is often a delay between these things and that {this awareness} is useful for both researchers and companies, and also feeds back into the teaching. What is important in those circumstances in my view is to have quite a wide range of companies and contacts with management people in these companies. Then, you can go back to them on a regular basis, a long term relationship which is not going to be used all the time. If six months from now, I want some information about something or I am thinking about a new idea, then I can arrange contacts and I can go back to the people and discuss things." (PRA).

In addition to the benefit of research collaboration as a facilitator for future access and enriching the teaching quality, this academic enumerated some of the general advantages of being involved in 'working together' with companies for the benefit of the future opportunities of research collaboration:

"So, I think having a range of companies where you got a fairly ready access to discuss how they handle particular issues is important... it is very important that you have that kind of network of contacts within the organisations. The advantages of that are that obviously you have an entree, {but} you cannot overuse that kind of thing, you have got to watch it does not become a nuisance. They have got the other jobs to do..." (PRA).

This academic refers to another point in the process of involving non-academic users in his research and points out that in some cases, the interest of managers in the subject of an academic research and its usefulness for their company is not similar along all the different levels of the organisation's hierarchy:

"I may think that it would be helpful to the company to know more about that. Very often, the individual manager that you are talking would actually like to have the work done, but to push it beyond his level requires a higher authority and if the higher authority says no, then that is it, so that is a disadvantage." (PRA).

Expectations

What were the expectations of the academic from this research project and his collaboration with practitioners? He put emphasis on different points, but the core of the academic's expectation was on the technical and academic outcomes of research collaboration. He also focused his interest for establishing a basis for future collaboration and a long lasting trust with the involved companies in his research project.

> "I think in the first step, what we would expect to do on the basis of research would be to publish a number of papers which is the normal output and that is expected by the ESRC. Secondly, we may well find a way in which we can feedback the results of some of our work to a workshop or seminar or small conference in which I am going to invite the interested parties from industry, and we are looking at that in present time. Thirdly, it would be regarded as a test of the success of the project if we were able to feed back some information to the industrial side of managers which was actually helpful to them in terms of their thinking about this certain set of problems. It may not be just in general terms but may also be more specifically about what issues might seem to arise, what issues seem to us to arise in the contacts within the companies which they may be thinking about, and secondly, I would say it is very important for us to be able to preserve our working relationships for the future. So, either out of some of that there will be opportunities for something more, like the additional collaboration or a kind of working towards partnership. These are kinds of things that..." (PRA).

The nature of the output and outcomes of research collaboration, its differences and diversities can be a matter of interest for both academics and practitioners and also the ESRC's policy-makers. In other words, this information can be helpful for a better understanding of the possibilities of collaboration, and therefore shedding light on the ways of encouraging this type of research.

What was the perception of the academic about the practitioners' expectations of this research collaboration? This data helped to find out how much mutual understanding about the other side's expectations existed.

> "I think in some cases it would be relatively limited in the sense that they will simply want to have the opportunity to find out what is going on in the academic world as it relates to their jobs, to have an opportunity to discuss with academics, what they are doing on some of the problems that they are concerned with and from that point of view, just simply may be to help them to do their job better and by being more generally aware of some of the issues and some of the development, may be what the other companies are doing and how they are thinking, these sort of things. I suspect that the academic wants particular things out of relationships. In many cases the management expectation would be more limited, but they will commit themselves, they would supply co-operation, they provide time and will make some resources available, as long as they think that they are likely to get something out of it

> which will be helpful. May be some of them do it almost as a public service in terms of, say, it does not matter, we do not expect too much to come out of it. In general, we try to be helpful to the researcher as long as it doesn't need too much time. You can get that kind of help in terms of people being prepared to spend time filling up questionnaires and talking on the phone, those kinds of things, and that is a very limited interaction." (PRA).

Although the above statement gives almost a comprehensive picture of practitioner's expectations in a standard form of helping with academic research, it might be different in a situation of research collaboration in which practitioners' involvement is continuing from the first stage of designing the research, to the stage of communicating the findings of research and its dissemination.

Interaction and management of research collaboration

The interview raised questions of the kind of joint meetings that bring both sides together, the mechanism for monitoring the progress of research or the existence of something like a steering committee. The Principal Researcher mentioned that there has not been a base for regular meetings and hence no steering committee or monitoring group in this project.

> " I think there would be in some projects but not in the kind of works we are doing. I like the idea if you are going to set a partnership, you would need some kind of mechanism. In technology projects they have certainly a project management group." (PRA).

And concerning the necessity of a mechanism for control by the ESRC during the period that researchers are carrying out their projects, this academic's view was:

> "In terms of a committee structure, no, I don't think anything. It would make sense to have in terms of the resources we require, it is much more rather for the resources, for staff that would require to put into more research...certainly that is on the bigger projects you have to come back and check the progress, not in relatively short scale of time and really small amount of money. I don't ever think it is necessary." (PRA).

It seems that there are different factors which can affect the management of a research project - the structure of collaboration, the size of research team and also the money which was consequently allocated for a research project. That is the reason that this academic does not see any need for intervention from the ESRC for such a short-term and low-budget research project. The same notion was supported by all of the other academics whom I interviewed in this study.

Consultancy and research collaboration

The differences between academic research and consultancy work were explained earlier from the view of the manager involved in this research project. What are these differences from the academic's point of view?

> "If you ask an academic to do a project or a piece of research work, they are likely to get things more and show a stronger commitment to think about that. So, in my sense it is very much up to the managers to decide what they actually want. They just want the solution or they actually want generally to work through a particular problem to understand more about it. If they have contacts with academics they may be able to take it up, define the problem and start working on it, and that is the way to go back to the collaboration and partnership notion and the problem is open-ended." (PRA).

This Principal Researcher stated his approach about the real situations for choosing between academic research and consultancy in industry :

> "If you need your solution to be in place in four months time or in two months time or next week, then you can go to a consultant to do it or an academic to do it. You can come back if the consultant doesn't come back with the goods in four or two months, whatever. It is then that you can get commercial contract and do something about it and if the academic doesn't come up with something, then it might be in the nature of the problem, because there is not an easy answer, and there are difficult agendas. But at least you can engage in that, you can find somebody helping you to understand about the pros and cons of the problem, different approaches and different variations of it and you can start to think about it. So, research is a much more creative process in that sense." (PRA).

This is an interesting example of the different attitudes of practitioners and academics towards the advantages and disadvantages of research and consultancy for solving managers' problems.

Finally, what was the perception of the Principal Researcher about the ways by which we can try to increase the effectiveness of research collaboration in management issues and to overcome its barriers in practice?

> "I was involved in the ESRC council with the discussion group. I think the only thing you can do is: first of all the quality of the research that has been actually done should be high. Secondly, the researcher should take opportunities not to report back the results only to other researchers and academics where it has an industrial or management relevance. They should find ways of feeding it back to them in general. Thirdly, academics need to talk more to more managers and to develop a kind of relationship. The ability to have a range of contacts, some kind of network with whom you could exchange views on different subjects and different periods of time without any great difficulty and where they can come to you with problems as well. If that networking is actually extended further, and as long as the quality of work which is done within that is good, then you can get more trust and more recognition of what can be done in social sciences research on the part of managers, and they begin to want more of it, but you've

got to break down the resistance from managers because what they attempt to get from social sciences research is what they would regard as soft information rather than harder ones." (PRA).

As can be expected, the quality of research is a first priority for increasing the effectiveness of research collaboration from the academic's point of view. But, this consideration needs to be accompanied by some other provisions for increasing the interest of managers and providing the opportunity of involving non-academic users of management research in the process of research. The study of this case showed how difficult it is to change the attitude of managers toward the significance of management research for solving their problems.

Conclusion

Case 'A' appears to be an example of a loose collaboration. It mostly shows the pattern of involving non-academic users in what is basically standard academic research rather than a research collaboration in the sense of active involvement of practitioners from the first stage of defining the problem and designing the research until the end. A proposal had been prepared by the researchers and then practitioners from different companies were invited to co-operate or to participate with them to provide information within the research sites. Although both academic and practitioner collaborators who were interviewed in this case agreed they had a positive relationship, this case did not show sufficient of the characteristic elements which are assumed to be involved in the process of research collaboration. For example, the Collaborator Practitioner did not have any information about the whole process of research project except the part in which he was involved. He was also not clear about the outcome of this collaboration for his organisation and his expectations of this collaboration were not very explicit. Although the practitioner collaborator in this case referred to the learning from academics as a benefit for this involvement, he did not report any change in his expectations or motivations as the consequences of this learning.

They had come into this collaboration by informal contact through another organisation which was familiar to both of them. The prior motivations for the practitioner were his professional interest in the subject, learning about other companies, getting the benefit of a systematic and new look at the organisation by an academic researcher, even though his attitude as a manager towards research collaboration with academics was not very positive in terms of his expectations of the help they could provide for him.

The academic's motivations for collaboration were mainly an interest in the subject of research, gaining an up to date insight into the subject area, and getting benefit from the long-term relationships for future research. Publishing a number of papers, the feedback of the results through a workshop or a seminar or small conferences, feedback to the companies and preserving working relationships with practitioners were described as the main expectations of this research project.

A number of barriers to collaboration were mentioned by the practitioner in this case. These factors were addressed as a result of his previous experience on working with academics and a general attitude toward academics' research. The different agendas of academics and practitioners and different time scales of their purposes were among these elements.

From the academic's perspective management research is a soft product compared to science and technology which end up with a hard product and so, in his view managers do not feel a need to enter into collaboration with management academics on qualitative issues.

One more point came out from this case study which indicates the consideration of the factors like organisation and culture of this large-size multi-national food industry firm by which the process of collaboration might be affected in different aspects. In essence, the practitioner preferred consultancy over research collaboration. Moreover, the dominant area of collaboration between this organisation and management departments in university was explained as training rather than research. The lack of practitioner awareness of management research and what management academics can provide for him was another point which was emphasised by the practitioner. This was reported as a barrier to developing the opportunities for collaborative research between academics in universities and practitioners in their organisations. The main impression was of different messages from the two sides in this case.

CHAPTER 6
CASE 'B'

This case is an example of collaboration between management academics and practitioners in management research, but within a different framework from the two other cases (A and C). This framework was a new independent university-based academic Forum which had brought together all the main retailers of financial services, irrespective of their speciality. The main goal of this Forum was determined to be getting an opportunity for maintaining a long-term relationship with industry, and conducting leading-edge academic research from a multi-disciplinary management and organisational perspective.

In a general sense, regarding the purpose of my research and its main question, this case was chosen because of its similarities to the other approached cases for study - involvement of both academics and practitioners in the process of research, the academic was the award holder of the ESRC grant in management disciplines, the subject of research collaboration was in the area of management and within the same industry (financial services), and its geographical region was Britain[1]. Moreover, as the principal researcher of the targeted ESRC research project was the director of this Forum, I had the opportunity to raise both my general research questions and the specific issues about the Forum. In addition to that, with the help of this researcher I arranged an interview with one of the Forum's members.

This chapter begins with analysis and discussion based on data gathered from my interview with one of the Forum's practitioner members.

The company was launched to the public in 1990 as a bank assurance company and the focus of its activities was on providing financial services for the customers of the main shareholder.

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[1] See also chapter 3, pp. 65-66.

The practitioner whom I interviewed was an experienced person in his profession with different positions in his professional life. This Collaborator Practitioner (CPB) was a research and information manager in his organisation at the time of interview, but he has been responsible for managing different tasks in the financial services.

> "I have had a variety of roles, I have been here for three years now, initially my role was to provide an interface between the sales force and marketing, and then I was looking at developing marketing opportunities, but now, I have a far more formal responsibility for developing the new supermarket research within the company and try and form a little bit of business information." (CPB)

The experience of joint working with other companies in the field and working in different levels of management hierarchy might be an advantage for this manager for the validity of his judgement of collaborative work with academia within this new established Forum.

> "We have very strong involvement through a variety of contacts that I have created with other assurance companies. So, I am the company's representative on the Life Assurance Research Association and I am the company's representative on the Forum and there are other formal and informal bodies in the industry that I belong to and I am chairman of a thing called the Bank Assurance Marketing Forum which is mainly the bank assurance companies' people getting together...so you tend to do many things in a small company but mainly my responsibilities are research and business information studies." (CPB).

This organisation was quite a small company with particularly a small head-office and management team and there were probably only about 70 people in the head-office and they had about 250 people in the field. This company had a small internal research group which was looking at the customer needs and product development opportunities. According to the information from 'CPB' the research side was feeding back the external situation so that they were able to develop products or marketing plans based on what was happening in the market at that moment and what they thought was happening in the market.

> "The temptation has always been in this industry that people think they know what is happening and therefore they do not want to check for it." (CPB).

So, they were involved in a lot of syndicated research with other companies in the industry. Keeping the cost down and so getting wider deals with the market was their motive for this kind of co-operative research with other companies. This manager described the variation of their research activities other than in case 'B':

"So, we use that {research collaboration} quite a lot and also by sharing information with the other bank assurance companies and it is a general procedure that we do not have a major competitive style with them, because each company really serves its own banks on customer base. So, we do not really compete for that, so, we use a lot of interchange with them. We do commission a little research of our own, and we do a little research among the field force." (CPB).

The interesting point about the collaborator organisation in this case was the nature of its in-house research projects which were also collaborative and worked together with other organisations. There are some lessons here which might be useful for exploring the characteristics of successful collaboration in other contexts such as collaboration between different companies which work on providing the same services or products for the market, and comparing them with the characteristics of successful research collaboration between academics and practitioners. For example, information exchange, frequent contacts and regular meetings for sharing the useful information were seen by the practitioner as the effective factors for the success of collaboration among practitioners from the same profession. But what about the research collaboration between practitioners and academics in the same field? This is the point that will be examined later through the analysis of data for this case:

"...we have an information exchange within that {inter-firm collaboration} which enables us to send surveys to other companies and ask them what they do. So, we have a fairly low overhead. We have quite a lot of collaboration with other companies and one of the most important parts of the job I suppose is the contact I have with people of other companies, but I am very much sharing the information and we find that very useful." (CPB).

The existing mechanism for handling and co-ordinating their joint research activities with other companies was their regular meeting. The Collaborator Practitioner explained:

"...we have quarterly meetings. So, we get together and talk about the projects, and you get quite a lot of benefit from just going to these meetings because you find out what their concerns and their worries are and you often see that they match up with your own. So, there is a big network of information going on." (CPB).

The academic side in this case was again a department of management in one of the well-known universities in England.

Why and how did they come together?

At this point we come to the specific research questions in the context of research collaboration. The main part of interview was started with this question: "Why and how did you enter into collaboration with university?".

> "Well, there were no physical incentives whatsoever, We received a circular letter from professor (PR) and his colleague explaining that the Forum existed and they were looking to expand its membership, and I felt and I think my boss felt that this was an opportunity for us to meet and again develop the network with other practitioners, and at that time I have to say that I do not think we really considered too closely that we would set a meeting and speak to the academics, but one of the other things that I found was that in fact that is quite useful, because they give a rather more objective view of us as we appear to the public. In addition, because we are a subsidiary of an existing member, we actually get that membership for half price. So, whereas the budget would have seemed quite severe to members, a half price membership makes it quite viable for us." (CPB).

According to this manager there were 25 members in the Forum. Each company was allowed to take two people but most companies had only sent one.

The interest of the practitioner himself and his organisation in developing the network with other practitioners seemed to be an important motivation for entering into this collaboration. They had found a new way for fulfilling their desire to network with other companies through this direction. The existing climate in the company, their previous involvement in a network with other companies and getting benefit from this communication were the appropriate background and perhaps preconditions for their decision to enter into this type of collaboration with academia. Moreover, we can notice the importance of saving on the membership fee. This point was one of the factors which the manager put emphasis on as an incentive to convince his organisation to enter into this collaboration.

What was happening through this collaboration? How often were the meetings? What was the schedule of the meetings? How did the practitioner feel about this procedure?

> "...it works very well and it is usually a one day meeting for three or four times a year and that is constructed in the 'B' University in such a way that they quite often have an executive lecture the night before, which suits very well, because it means that I go down and listen to the lecture and then again usually have dinner with some of the other members and a chance to meet them and then the formal meeting is the next day and then I come home in the evening afterwards. So, it is quite a long journey from here to the location of 'B' University. But, it is nice to be able to make the most of it. From a practical point of view the problem that I, as a manager had is that I have a very limited budget to do the things that

> I wanted to do and so you have to get the best out of every travel and all the other things that you do." (CPB).

As is suggested by the above statement, a suitable structure would seem to have been organised for this collaboration. The structure of collaboration is one of the areas for debate about the necessary elements in studying collaboration. Loxley (1997) suggests that structures need to have open boundaries and means of exchanging resources, information and services. She also emphasises the need for organised structures which would be able to take risks in assessing the balance between costs and benefits. In her view this structure should be able to build up trust.

Is the immediate commercial return the only motivation or the predominant motivation for companies to enter into research relationships with university researchers? In this case, we can see a wider perspective for doing research than just individual commercial benefit. The collaborator practitioner clarified the recent notion in the process of research collaboration with academics in universities:

> "We have a variety of research projects but the concept is that we have a rolling program of research that they do for us and we, the practitioners, specify what we would like to do and it is done on the process of steering. I suggested that we would actually like to look at the whole field of regulations and how it has affected our industry and whether in fact the regulation was in need and why the industry is meeting its aims. So, we suggested that it would be a good idea to do a project on this and it is specifically not only for our company, and it is specifically for the whole of the Forum and the Forum itself consists of different organisations. So, we are looking at the wider industry rather than the narrower industry and that is quite important." (CPB).

Communication

Effective communication which helps mutual understanding of both side's goals, objectives and expectations can be discussed as the key factor for a successful collaboration. What seems important is the nature and richness of communication. An effective communication means good exchange of information and necessary resources. A timely review of the perceived needs for collaboration by both sides could be helpful for considering them during the progress of research collaboration. These considerations seem to be connected to each other and all of them are dependent on a good relationship. Long-term and short-term incentives for entering into collaboration cannot be realised except through an effective two-way communication. It has also been discussed in the different contexts of collaboration, for example education, that frequent and open communication is a necessity for

achieving mutual understanding of the researchers' and practitioners' perceptions throughout the process of collaboration (Commings and Hustler, 1986; Threadgold, 1985). The chosen mechanism for an effective communication might be different and dependent on the types and circumstances of the collaboration, the agreed agenda for collaboration and the expectations of the two sides of collaboration - researchers and practitioners and their organisations. What role did this vital factor of communication play throughout the process of this collaboration? 'CPB' explained the mechanism that was employed for working together since the project sounded interesting:

> "...so, three or four of us were then delegated to go as a steering group and produce a brief. We then presented this to professor 'PR' and his colleague, and they produced from that their interpretation of what they thought. The researchers from the University of 'B' can then come back to us as a steering group and say what do you think of this and then we say, well we like this, and we like that and that to be changed and having got that far, it is then put back before the whole Forum to say 'yes' or 'no', and that is just what happened to this project. It was just straight forward, we have a paper here, do you like it? We recommend it, we think it does what we think it should, and it was a show of hands and everybody accepted it." (CPB).

What were the characteristics of such a mechanism which according to the Collaborator Practitioner was successful in terms of building up a strong network? Were there any other channels of communication beyond their steering committee or the official meetings in 'B' university?

> "...I quite often pick up the phone and say, you mentioned something in the Forum meeting, can I just ask you about that?, and I definitely find it helpful. That is a big part and valuable part of it...'PR' as the director of the Forum actually sends out lots and lots of paper through the fax and they produce lots and lots of reports, they have not stopped producing the vast amount of paper, but what they have done is that they produce management summaries, but we still get all the research papers. So, I have a desk full of research papers which are quite useful, because I know I can use this if I have to go back, but that kind of communication is quite useful as well." (CPB).

Some precursors to and characteristics of an effective communication can be detected in the above statements. The involvement of two parties in the process of formulating the research subject, their close relationship during the phase of adjusting and reconstructing the research proposal, and assessing its feasibility in a joint meeting are some examples of these characteristics. As we notice, using a combination of different means for exchanging information through the different channels of communication can be a characteristic of an effective research collaboration. The satisfaction of practitioners with the ways of communication may be a good pointer to the success of this framework.

Learning process

The learning process is, again, one of the points that the collaborator practitioner in this case emphasised through explaining his experience of working with academics in the recent collaboration.

> "...to me the important thing about what we do in the Forum is that apart from the fact that it gives me a chance of looking into the world of academia which is interesting, the way in which this thing is structured, where we put forward a need, they come up with a potential way of researching that need and then the vital bit is that we are also in favour of talking about it and that is quite difficult to manage, but there are some real management issues which I think do exist. Professor 'PR' thinks they are useful because he is not used to dealing with practitioners and he says that the value to the university is that they now are learning much better how to deal with practitioners . So, that is very good, but I think it works the other way as well that we can learn quite a lot from the academics, although we initially think that we cannot {learn}. But the very important thing is that you can always contact without meeting, but it would not work because it is the meetings which are valuable, and understanding where people are coming from and understanding people's different aims and requirements. So, this is the mutual understanding between academia and practitioners." (CPB).

Although this statement essentially reveals a process of building up a two-way learning, several other elements can be drawn from it. For example, the interest of the practitioner in looking into the academic world which could act as a general motive for research collaboration, the presence of a need from practitioners' side for the outcome of research, the necessity of an effective structure for coming together and the importance of the regular meetings for a better communication and mutual understanding.

The learning process in terms of experiencing the journey of collaboration and getting a more clear understanding of each other (academics and practitioners) could be one of the *'pre-outcomes'* (my term) of research collaboration and a worthwhile input for future opportunities of working together. When I asked the practitioner to compare his perception and expectations at the beginning of this collaboration with the time of the interview, he explained:

> "When we joined I did not know what to expect. I thought it would be useful from a networking point of view and when I went to the first meeting I was *horrified* at the academics but now this is an evolvement that the academics are producing more useful material and the relationship with the member companies has also grown so that these people have become like friends. So, it is much easier if you want some information to just pick up the phone and say, tell me, give me some information about this or what do you think about this. So, that is quite useful." (CPB).

There are two points which are worth noticing. First is the perception of practitioners of academics and their expertise before having an opportunity for working together. Why was the practitioner *horrified* about the academics? What is horrifying about the academics? Is this the impact of the accepted 'Ivory Tower' image of academics and their work? How can this perception be changed? There is a second point which can be perceived from the practitioner's experience during this collaboration and it is a *change* in his approach to working with academics. Therefore, it may be concluded that if academics could find the appropriate frameworks for working with each group of practitioners in different organisations, it might be an effective means for improving the quality of relationships between academics and practitioners in research collaboration. It would also help to a better understanding of each other's interests. But, it might be argued that establishing such a relationship cannot secure the freedom of researchers' academic work against the danger of the intervention of practitioners and also their dominance over the academic research. How can this contradiction be avoided in practice? The nature of the research subject which will be the focus of collaboration may play an important role in removing this barrier, for example, maintaining a balance in choosing the research questions for study which can serve both academics' and practitioners' motivation for entering into research collaboration. Choosing the long-term strategic subjects for research is one of the options that 'CPB' suggested:

> "It has to be for the common interest, and really the projects for that reason tend to be strategic and fairly wide ranging topics rather than very narrow ones, but that is the way the thing is constituted for the common interest rather than for individuals, but I believe that one or two companies then go back to the university and say: by the way would you like to do the project for us." (CPB).

This notion was also addressed by some of the academics within the supplementary interviews in this study[2].

Consultancy and management research collaboration

The academics who were interviewed during this study usually insisted that they did not want to say to practitioners that this is the answer to their question. They believe that this is the job of consultants, rather they wishes to be seen as looking for the reasons which cause the practitioners' problems. What was the real expectation

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[2] See chapter 4.

from academics during this collaboration? The following is an exchange with the Collaborator Practitioner:

> Researcher: "What is it you are looking for in this collaboration? Is it just an answer to your question, or something more?".
>
> Collaborator Practitioner: "Well, that would be lovely, but they do not always give us the prescription, but you see that is the difference between dealing with research between academia and professional research practitioners because the professional practitioners not only do the research, but they suggest ways of handling the problem, and I think if you look at the difference between academic research and professional practitioner research the big difference is that the practitioners will say: 'and we think you can solve this problem by doing this, this, or this, on the other hand, you might need to be careful about this', and that is the big difference..." (CPB).

But it seems that there is not always an absolute and assured advantage of using consultants' services in management research. Although this company had used consultants' services rather than academic researchers' services to solve its problems, the manager's statement did not indicate an entire agreement on unconditional preference of consultants' works over the academic researchers' studies:

> "We use a variety of consultants, some are good and some are not and the basic problem is how we use consultants. You have to give them a very definite brief and I think in the past as a company we have not been restricted enough. You can always tell, when you get the results, how your brief has been... and unless you can tie it down and say what you have to do is this and this and that, then you give them a blank cheque because they usually do it on an hourly or a daily basis and they will not confirm exactly how much the project is going to cost...I think quite strongly that consultancies have to be very carefully controlled. You think that the consultant knows exactly what you want and will come up with all the solutions and so often consultants are not very successful in the business, otherwise they will still be in business and not be running consultancies. Now that is a theoretical view, but I think that is true." (CPB).

On the other hand, it was the capabilities of academic researchers for working on short-term near market problems which were open to question. This is the area of activity in which practitioners believe that academics are not very qualified. But it seems that there is an alternative way to improve this situation. This manager explained his experience of the recent collaboration:

> "That is why the Forum works for longer term strategic issues. If they were individual day-to-day non-strategic practical issues, then I do not think that the academics can cope with that, but the fact is that they are looking generally at the longer term non-specific or non-focused issues. If they were working for individual companies, then they are dead in the water really, because they could not produce the information that the company wanted, but the fact that they are

> looking in an industry wide overview, usually on a long term either historic or future basis, it is quite acceptable." (CPB).

Working on long-term and strategic issues of management in different industries instead of investigating the problems of solely one organisation was frequently emphasised by both academics and practitioners whom I interviewed. They referred to this emphasis as a main practical solution for fulfilling the mutual benefit of academics and practitioners through research collaboration. The Collaborator Practitioner in this case added:

> "...unless they {academic researchers} are prepared to get into competition with professional practitioners I do not think it would be useful to anyone...I do not think that they are equipped to get involved with the near market research, because they do not understand the market." (CPB).

As the different perception of collaboration and previous experience of collaborators can make a difference in the type of relationship and their involvement in the process of collaboration, this information could help with the analysis of data about this case. The manager who was involved in this collaboration explained his previous experience of working with academics as follows:

> "Some years ago, I ran my own business and a well-known university offered an advisory scheme for businesses wanting to set up computers, and they did not give me the information that I needed and they were not prepared to say this is what you should be doing, and in the end I went to a consultant and it worked partly. But as a company, I do not think that we have been heavily involved with other universities. There is a weak contact with a university which is established in our city but we actually send some managers out to schools to help with the schools projects." (CPB).

Again, it is the lack of contact and joint research work between academia and business which emerges as the conclusion of practitioners' personal experience of involvement in research projects with universities.

One of the questions of this research which was being examined through the analysis of data, concerned the expectations of involved parties in the process of research collaboration. What were the benefits which they get from this collaboration compared to their expectations? The collaborator practitioner in case 'B' explained:

> "...my expectation was to have an opportunity for networking. Now my expectation is far greater, it is a good stimulation for debate and for information and I think initially my expectations were very open. I did not know what to expect. Now, I think we expect quite a good standard of research on board of

> the strategic topics and the opportunity to discuss those findings with other people within the industry. So, one cannot only get the academic or the research view, but one can discuss how to apply that with one's other peers in other companies and in some ways that replaces the consultant's role, because you bounce the ideas off other practitioners and we might or might not come to the same view but at least we have been able to discuss it and still the good part of the value of the Forum is the networking aspect, the contact and the review..." (CPB).

The evolutionary nature of this collaboration is illuminated through a process of learning which leads to forming a more definite expectation of working with academics. Moreover, it can be noticed that when this practitioner gets the opportunity to learn about what academic research can provide for him as a manager, then his expectation of collaboration with academics increases.

Successful research collaboration

The meaning of success and the way of measuring it is one of the debatable issues in the area of social sciences research and accordingly in research collaboration. Therefore, to examine this notion from practitioner's point of view the question was raised: "How do you describe success and how do you measure it at the end of this collaboration?"

> "Oh, that is very difficult, because I do not think that I would show a cost-benefit for it. I wish I could, because it would be meant, and success is very hard to measure. Let's face it, I spent £3000, I suppose you could say up to £4000, on the project, so providing we would get some value from that, then I guess it is very stimulating, but they are very hard to measure and the answer is that I do not know and I wish I did. You cannot say we get this and this, therefore it is worth this. There are so many issues that you cannot identify really.....about the regulation I can imagine that there should be some way to describe it, but it can be very difficult to use this stuff in a day-to-day context, that is quite difficult." (CPB).

This explanation seems so revealing in terms of the important factors for defining the success and its measurement from the industry's point of view. The limitation of outcomes for the purpose of cost-benefit analysis, the shortage of funds and the constraints this places on such collaborations with universities explain the problem of measuring collaboration outcomes, though Collaborator Practitioner B refers to "a lot more value to it than that" in this summing up.

Principal researcher's perspective

Now, we come back to the data gathered through the interview with the academic researcher in this case. He had different experiences of ESRC research activities and had worked extensively with industry. He was also the director of the Forum.

> "It is very difficult for me to answer, because I am involved with the ESRC in different ways...and the PICT[3] project. I was involved from the beginning and I have been the deputy director of the PICT project in this university and was involved in, certainly, collaboration with industry." (PRB).

So, this academic was influenced by his different involvement in management research - ESRC, PICT, the Forum, and the other kinds of collaboration with industry.

Regarding the main purpose and questions of my research on academics-practitioners research collaboration, the Principal Researcher's mixed experience not only was not a disadvantage for this study, it could also give a comprehensive look at the subject of research from different aspects.

Definition of research collaboration

This was the academic's explanation before answering the question: "What does research collaboration mean:

> "What is from my point of view collaboration with industry in a big way, has nothing to do with any of these ESRC projects. Collaboration means different things in different contexts...that is the collaboration that I have set up with industry...that is difficult to get it from the ESRC projects, you never can get it within the ESRC projects." (PRB).

The above statement raises some questions. Is this the main reason that the majority of the principal researchers of the ESRC-awarded projects in management research replied to my letter to say that their research project was not collaborative? So, what does it really mean? Why did the researcher emphasise that the ESRC research project which he was involved in was not collaborative, though it was included in the list of management research projects which had been sent by the ESRC in replying to my request? Therefore, this was an indirect question to find out the

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[3] Programme on Information and Communication Technologies (PICT). See also footnote pg. 113.

perception of the researcher of collaborative research: "From your point of view, is this project[4] an example of research collaboration or not?".

> "It is collaborative in the sense that obviously we have to get the various companies to agree that we do research on them. First of all is the questionnaire that went out to every single company in financial services, that was something like three to four hundred companies. So, that is a minor collaboration: fill in the questionnaire and send it back. Secondly, we have to get six companies to collaborate with us to allow us to go into their companies to do intensive case study work over a period of at least three months for each company." (PRB).

Can we say that at the end it is a sort of collaborative work? Minor collaboration is the explanation that the researcher used for defining the relationship during the first stage of this project, then he referred to his earlier definition of collaboration and pointed out that:

> "It is not collaborative in the sense that we can get a mutual objective between two parties which I would define as collaborative. I don't think collaboration is a word to use when you are simply getting research access. It is access. " (PRB)

What is it that makes the distinction between a project that is known as collaborative and one which is not? Mutual objectives might be one of the characteristics of research collaboration. This is not necessarily a common situation in the ESRC research projects. In most situations the standard pattern of academic research does not show the complete involvement of practitioners during different stages of research, especially from the beginning. So, mutual objectives for research collaboration may not be achieved through the process of working together. Access to the information for doing a study seems to be the most common reason for the academics to ask for the practitioners' participation. In this kind of relationship, it is the objective of the academic researcher which determines the extent of practitioners' involvement in the process of research and the degree to which practitioners are included in the project. For example, in some projects, they are just involved in the stage of data collection by questionnaire and in others they might have further involvement in the phase of the study which is carried out by academics, and also providing necessary documents for their study.

The Principal Researcher added more explanation to his definition of research collaboration, but again the different attitudes and distinctive expectations of academics and practitioners were the focus of his attention:

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[4] At this point, the ESRC-funded research project was the purpose of question. This was a two-year research project commenced in October 1993.

"...my understanding of collaboration is that university people are working with managers in industry on projects which both parties would find of value, and there is always a conflict between academia and business. People in business want an answer tomorrow to today's problems. Academia is concerned about doing research that is more substantial and not just quick fixes, and so it is very difficult to make some link between academia and business. It is very difficult, but you can do it, because most business people in a sense respect what academia is doing. They do indirectly get knowledge from academia, whether it's filtered through consultants which it usually is, or whether it's just by reading some article that has been informed by some academic researcher... what else is collaboration? Collaboration, I suppose, is trying to accommodate business interest in such a way that they feel they are learning something from the collaboration." (PRB).

The existence of value for both parties can be regarded as a prime motive for collaborative work between university and industry. The interest of practitioners for learning from academics is one of the notions which I repeatedly came across through the interviews. But, what is really happening in the different situations? Is this a desire which can be fulfilled easily in practice? The outcomes of research collaboration might be different in terms of time and the type of benefit for both sides. What are the reasons for conflict during research collaboration? The Principal Researcher presented his approach in this respect:

"It is very rare that you could do with that kind of research {the standard type of academic research} and basically what you do in that kind of research is that you do have to get the collaboration of industry, to get your data, but again it is one-sided. You do give them feedback afterwards and you don't give them feedback as you are going along because of the political nature of organisations. It is a problem and usually you feedback information sometimes that will be used politically. You can't damage the people who have been kind to give you information. It is always a tension with research working in industry....they {academics} only return the thing they get, visibly a report of some kind. It is a report of research and usually it is a report of general research and it is usually a thick report and most managers never get time to read it." (PRB).

Two more characteristics of research collaboration seem to be the continuous feedback at the right time, and in a practical framework which could be understandable by practitioners. When the practitioners are actively involved in the process of research with a mutual objective for solving a definite problem, then they are more concerned about the output of the study. They would feel that the output of research belongs to them as well. This can be illustrated by comparing the researcher's definition of a collaborative research project in terms of mutual benefit for collaborators and what was explained by the manager involved in this case of collaboration:

"I said that it is very nice to have all this high flying material for publication and good luck to you academics and off you go and do it, but please do not trouble

> us for it because we just cannot work with that volume of wordage...when they do a report they produce an executive summary which I told them not to exceed more than four pages, and if they do, no-one in this organisation would read it and they got it into eight pages and asked me what I thought of that, and I told them that it would be brilliant if it was half the length again and use smaller words, because they used these great long technical terms which no one understands. I think that it is very important as a research manager that the research that I produce for my colleagues is in a language that they understand and in turn they act on it. So, there is no good producing research if it is of no practical use to other people within the company...and I do not want any complicated information that is uninterpretable." (CPB).

As we see the essence of this statement is the practitioner's need for an understandable and practical report of research. The practitioner's attachment to the progression of collaborative work was obvious through his emphasis on his involvement during the collaboration process. But, what if a research is just one-sided and practitioners are only a source for providing access for academics to get information for their study, with no mutual interest in obtaining insight into a problem? 'The Principal Researcher gave an example of the ESRC-funded project which can show the different relationships in collaborative and non-collaborative research projects:

> "...for example in this project, most of the papers we have written on this study are very critical of the quality of the management, these are very critical of the companies that we are researching with. If we give these papers back to the companies, they will be horrified because we really do criticise these companies about what they are doing, but we have got to have that kind of material now obviously. We will produce a report which will go to the companies but they would conceal it in their own companies, however." (PRB).

Although this seems also a kind of feedback, it is very different from the process of a two-way communication for exchanging information, achieving mutual understanding of a problem, building up trust, and working together towards a definitive objective.

> "...we will feedback to the companies that have given access. Some kind of reports at the end of projects, that is the link, and I don't think that you can really call it collaboration with industry." (PRB)

Barriers to research collaboration

Although the Principal Researcher in this case was working heavily with practitioners in industry and seemed to be successful in this respect, he referred to the general types of problems through the process of research collaboration when the money comes from industry.

> "Collaboration is problematic, because nearly always it is academia that has wanted to get money from industry and in our case (Forum) that has been the case. It is about funding because academics literally do not have resources or do have a few resources and the business has lots of resources. So, there is a danger of a relationship which seems to be one-sided and business is always asking what we are going to get out of it..." (PRB).

As we notice, it seems that different relationships produce different problems and barriers to collaboration between university and industry. In other words, when there is a financial commitment from the industry's side, the structure and arrangements for the sustainability of collaboration may be different from the situations that the resources involved with the part of industry in the process of research are just personnel, time and information. For example, a phone call which was made during my interview was very revealing in terms of extra roles which academic researchers have to play for keeping the collaboration on going and alive. 'PRB' explained details of their conversation which was related to this case of collaboration:

> "It is always precarious and the example on the phone was about a member of the Forum I run who would decide not to, on what basis, withdraw from the Forum and not pay the fund for this year even though they promised they would. Then I had to do some politics within the organisation and go round to the person who had refused it, by going to someone else and that couldn't be like that in most organisations. I know people in that organisation and I have got a good relationship with the people." (PRB).

This might raise a criticism that the main role of academics is teaching and research to a high standard and not negotiating with practitioners for getting money for research. Is there a contradiction between the funding of research by industry and the quality of research? Although it still remains a question, it does not necessarily seem an unavoidable compromise over the quality of academic research. The Principal Researcher in this case placed very strong emphasis on this notion:

> "I think it {research collaboration} has to get value, it has to be strong in both sides and it is what I am doing with my work, it's always being very strong or trying to be very strong academically in the academic world and I now have a very good relationship with industry. So, I am trying to have both strengths." (PRB).

The majority of academics I interviewed argued that there is a preference for services of consultants rather than academic researchers' work for managers. The nature of management problems, the users' perceptions of their problems and needs, their intention of getting quick answers were stated as the main reasons for this preference.

"...yes, it is the case, there is a big gap between the two, the consultant's report is superficial, but academics' report is usually quite deep and theoretically sophisticated and the only people that read it are other academics, because it is quite different." (PRB).

To examine the above claim in the context of case 'B', this question was put to the academic "Do you have the same problem with the practitioners who have entered into this collaboration with you and your university? "How can we overcome this problem?"

"With difficulty. It is a big problem of translation and one of the main things that we get from our practitioner members is that: 'I can't follow, the words are too long, it has got a lot of jargon' and that is another way to say that they do not understand the words, but I think we are succeeding in trying to translate words to more practical management speaking. The problem is that we don't want to be consultants, but there is always a tension, we still want to do academic research, otherwise, there is no disappointment at having these words." (PRB).

This problem was illustrated as well by the Collaborator Practitioner while he was explaining his experience of this collaboration:

"We do not have a major problem getting the work done and the only problem is this concept of completely different language and all those have a different outlook on life. The practitioners need short sharp pointers and the academics have a totally different objective all together, but the major function of the academic is to produce papers which are suitable for publishing, which is going to help towards his name in academia and we had many discussions about this in the Forum.... we only joined a year ago and they had two meetings that had hours of discussion and they were just going around in circles. In my view, I would say that this is hopeless and you got to realise that you had to give us a word that we can actually work on. But we have this understanding now that they produce an executive summary that is not now more than four pages long." (CPB).

As we notice, there are interesting points in this statement. Using the expressions: *'hours of discussions'* and from the practitioner's point of view *'just going around in circles', 'hopeless', you had to give us a word that we can work on that'* can be pointers to the problem of communication and hence, the difficulty of knowledge exchange between practitioners and academics. This also indicates, once more, the practitioners' priority for gaining practical advice for their problems.

Expectations

Practitioners' prior objective is looking for a solution for their managerial problems whereas academics are looking for academic outcomes. It seems that there is a

relation between the objectives and goals of academics and practitioners for entering into research collaboration and their expectations of that.

> "My expectation is that we publish. From a two year project you would expect to publish at least two or three papers. If there is time you might as well produce a book. There is often a problem with that and the biggest problem is that very often we go from one research project to another consecutively. We finish one and then we are onto another, and there is not time to write up the material in a book form. I have written a more recent one but that is a part of it. I think a lot of projects are too short, at least the two-year ones are more difficult. So, I think if the ESRC thinks that it is important to get output, if they think they lose out from having the projects that are too short, of course, it would be better to have longer projects, but then you would be doing more research." (PRB).

Although the Principal Researcher referred to the ESRC projects in explaining his expectations at the end of carrying out a research project and not specifically the case of research collaboration, this statement had a point which is worth noting. The limitation of the ESRC-funded research in terms of the duration of time was described as an obstacle for gaining the expected academic outcomes. This problem was mentioned by some of the other academics whom I interviewed during the field work of this study.

As was discussed before, expectations of academics from research collaboration seem to be more explicit and well-framed than practitioners' expectations of working with academics. Sometimes, the practitioners' expectations vary in terms of their need for academics' assistance which are not always in the area of research. The building up a good relationship with practitioners for future opportunities of collaboration may require to take account of some of these expectations. The Principal Researcher explained two examples of his experience in this respect:

> "Because industries have become more competitive, most of the time they resist one giving help, and because the universities have become more competitive as well, universities are making more demands. So, there is a resistance so that does mean that to get access. , you sometimes have got to go and help on a training programme and that is not research, that is consultancy. You would have to have a lecture for the top 60 executives and I do not particularly want to do that. I would have to read stuff, that I would not want to read, in order to do that. If I do not do that the collaboration will not continue. If I refuse to do it they would not collaborate but the problem is that it is very difficult to do all this, so the pressure of work is high." (PRB).

Another example was:

> "I dealt with a company down in south England, of which the chief executive I knew from my previous research projects, and I do still know, invited me, and he was happy to get no report back. He was happy that we, me myself and my research colleagues, only go round the company, asking questions that were

making them think. His staff and he found that way so sufficient and stimulating his employees to think about what we are doing through asking the questions. So, I think that is a benefit that business does not always recognise that it gets from researchers when it gives researchers time to be interviewed...it certainly can help the staff to be reflective upon what they are doing, and may be as a result of that reflection to do better." (PRB).

Both of the above examples show the diversity of the potential opportunities for academic researchers in university and managers in business to get benefit for building up a better working relationship. These kinds of relationships can work as a base to form the mutual interests for research collaboration in future.

Conclusion

This case of collaboration between management academics and practitioners happened within the structure of an independent university-based financial services forum. This collaboration appears to be well assembled in terms of its aims for involving non-academic users, in conducting strategic academic research and providing opportunities for a wide range of contacts and exchanging information. Two characteristic aspects of case 'B' were the effective communication during the process of this collaboration between academics in university and practitioners in industry, from one side, and the evolutionary process of collaboration on the other side.

The practitioner's prior motivation for entering into this collaboration was gaining an opportunity for wider contacts with practitioners in other companies and developing the network with them. The professional interest of the practitioner himself in the subject of collaboration and the willingness to experience collaboration with academics and benefit from their research expertise for proceeding their plans were also mentioned as other motives. Working for longer term strategic issues was mentioned by the practitioner as one of the reasons for the success of this collaboration.

The learning process through regular meetings between collaborators and using different means of communication for exchanging information, and following the progress of work seem to have provided an opportunity for mutual understanding between collaborators. The practitioner reported a positive change in his approach to working with academics and the usefulness of academic research. He also mentioned this process of learning as a reason which had intensified his expectation of this collaboration from 'an opportunity for networking' to 'expecting a good

stimulation for debate and for information, and a quite good standard of research on the strategic topics'.

The difficulty of understanding the academics' technical discussions and also the contents of their research reports with long technical terms was referred to by the practitioner as a barrier to research collaboration and the practical use of research findings. This problem was a reason for emerging conflicts in some points of collaboration, but the presence of a two-way communication provided an opportunity for discussing the problem and adjusting the solutions.

Working with mutual objectives, finding a value of working together by both parties, and providing a situation of learning for practitioners were indicated by the principal researcher as the main conditions for occurrence of research collaboration.

Although both the academic and practitioner collaborators agreed on the success of this collaboration, the academic referred to the difficulty of collaborative relationships with practitioners in practice. This difficulty seems to be expanded when the collaborator is a funding body as well. Such a problem derives in part from the dependence of the university on funding bodies for proceeding with collaborative projects. The other problem is due to the academics' priority for a high quality of research.

The study of this case showed the impact of different structures of research collaboration on the effectiveness of this process in terms of gaining a balance between the needs of practitioners for practical outcomes and academics' obligations to provide high quality academic research. The nature of financial services companies and their experience of networking with each other, the size of organisation and both parties' wide ranges of experience on the area of research may be the other factors which made this structure of involving non-academic users in academic research to be judged successful by both sides of the collaboration.

CHAPTER 7
CASE 'C'

This case is an example of research collaboration between management academics and practitioners. It was a three-year research project which had been started in the beginning of June 1993. The project was an 'applied strategic' type and the research was to be carried out from an action research perspective in co-operation with organisations spanning the public and community sectors. These organisations were concerned with developing their own ability to manage collaboration effectively.

The research site is a community based organisation established in 1986 as a network of voluntary, statutory and other organisations in the 'C' region, working together to combat poverty. The two practitioners I interviewed were actively involved in the process of this research collaboration. Both of them had a high ranking position in the central office of their organisation and were well informed of the details of the collaboration process.

The academic side in this case is a management science department and two main researchers from this department were involved in the project[1]. Both of the researchers are well-known in the subject under research with several publications and credible research records.

This case study offers a number of interesting insights into research collaboration between management academics and practitioners based on analysis of data gathered through interviews with both involved parties. This provides an opportunity for a better understanding of involvement of non-academic users in the process of research, and its advantages and limitations.

[1]As I learned later, a PhD student was also involved in this research project.

How did they come together?

All the cases in this research sought to assess: What is the situation which makes the collaboration happen? What are the factors that get the interest of practitioners to enter into the process of research? And can we provide a framework for this situation? So, let us see how it happened in this case:

> "...if you mean how the relationship began, I was in the university for quite a different reason, speaking to a group of people about poverty. After the meeting, we went to the bar for a drink obviously, and we were joined by other people, and somebody asked me what it is that my organisation does, and in talking about it, I said that we are interested in how we help our organisations and our members work together, and one of the people in the bar was the computer scientist working in the business school who said, oh! we are doing something about that, and that was where the word *collaboration* first came as a topic for me, and I simply said that is really interesting, I would like to find out more, and then here we are, few hundred yards away are people working on the same issue and so I was amused and said, well, we could perhaps meet and that person acted as an agent to enable us to meet and that is how we came together, not through any other process. We didn't identify them by searching through a list or catalogue or anything." (Main Collaborator Practitioner in this case, MCPC)[2].

What is obvious here is the nature of contact which is informal and accidental, but clearly not every informal contact between academics and practitioners will lead to an opportunity of research collaboration. What was the main element within this conversation which took the attention of this manager and led to the next steps? The interest in the subject of research from both sides of collaboration seems to be one of the basic elements for formation of this collaboration. As we see, there are several factors which can affect a fruitful contact, for example, mutual interest, the time coincidence of the importance of the research subject, the role of an agent for introducing the two sides to each other and geographical proximity. The above statement is very much revealing in all of these elements.

The Principal Researcher in this case (PRC) referred to the same origin for starting this collaboration:

> "...but as it happened, one of my colleagues, a completely different colleague who is not interested in this area happened to be in the university dining night with the director of the collaborator organisation and that is where they met and that is how we got the contact and we met each other and talked toward it and found out that we have a mutual interest." (PRC).

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[2]He was the director of the collaborator organisation.

Motivations

What was this mutual interest? What do we mean by time coincidence for revealing this mutual interest? What were the motives of the involved parties in this collaboration? From the practitioner's point of view, was it a desire to solve the organisation's immediate problem? Was there any pressure from the external environment of the organisation, or a combination of both external and internal factors which caused the interest of the practitioner in entering into this collaboration?

> "Why we are tending to do this particular aspect of the collaboration which is the word which I would now use {learning the academics' language and using it, catching the same meaning} is because our members are very often encouraged to work with each other or with other organisations in addressing socially from the government down, the message of working together, bringing the resources together, targeting the resources effectively and so on." (MCPC).

The above statement shows an external factor for the interest of the organisation in the subject of collaboration. What seemed interesting at the beginning of the interview, was the emphasis of the practitioner on the language of academics and using the word *collaboration instead of 'working together'*. It shows an indirect attachment to the mutual understanding of the subject of research.

What was the internal problem of this organisation which made the practitioner think about finding a solution? He explained the problem as follows:

> "What we found out very early on in the beginning to get to know our membership, was that everybody knew that they were supposed to work together and in many cases we are trying to 'work together' with other people and recognising the alliance is about working together, but their experience of working together was very poor, basically they were unhappy and so there was a conflict in the contrast between what they knew they should be doing, what they believed they should be doing, and what they actually wanted to go on to do." (MCPC).

But how did the practitioners start to confront this problem before coming together into research collaboration with the university? Had they tried solving the problem inside the organisation or did they not know how to begin?

> "We were using the same range of words as our members, joint work, co-operation and so on to describe this situation and that was when we began to ask, was there anything that we could do to help our members. So we read this aspect of experiences more constructively that we began to look around for the concepts and practical ideas and we did a literature search, not an academic research, but our own looking within the publications produced in the voluntary sector that we would normally come across, to say if there was anything in there that could help us. And there was lots of materials about how

to organise a group, how to find out about the other organisations, but not a great deal on how to work effectively with others." (MCPC).

When these practitioners started to work with the university, they had realised a need for doing something beyond the literature review to help them to find an effective way of working together. In other words, existence of a need for working on the subject of research can be a strong motivation for the interest of the practitioners to enter into collaboration. But what was their perception about the university's need for coming into this collaboration with their organisation?

> "There were different needs to be met, there is a student to do a PhD, there is a department needing to bring in resources, because there is pressure within the university and I think we don't bring money into this, but we bring our organisations. We have opened the doors to different groupings within a network which would have not been so easily accessible by the university independently, and that is quite a major step for a young organisation[3] to take and to say yes, we will let the people work with us on the processes that we are trying ourselves to develop and understand. The university was aware of sources of funding for tackling this issue that we now have, and because they had a small project to work on already with us, and because we had begun to work together, they were able to submit an application which made it clear that it was already a partnership." (MCPC).

The possibility of access to the organisations' resources has been frequently indicated in related literature as a motivating factor for academic researchers to enter into collaboration. In the case of social science research these resources are mostly in terms of access to information through people and organisations rather than equipment, materials or other financial assets of organisations. The practitioner also sees his organisation's collaboration as a reason for funding the research project by the ESRC[4]. There are two revealing points in this statement. Firstly, the issue of mutual needs that becomes a central point for coming together and becoming involved in collaboration, and the difference between 'mutual needs and interests' and 'similar needs and interests' in such a situation. In other words, the collaborators have to accept that their needs and interests are different, though they are *mutual* in terms of their significance for both sides of collaboration. This

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[3]At the time of interview, the 'C' Organisation had been working for approximately eight years.

[4]Since around 1994, the research proposals submitted to the ESRC have to include a section to show whether non-academic users of research are being involved in the different stages of research - designing, conducting, managing and evaluating of research. Dissemination of the findings of research has also been required to indicate the engagement of users.

consideration can be of a great help to the reduction of barriers of collaboration and building up a better relationship within a longer-term period.

The second point is the influence of the practitioners' professional involvement with the subject of research which can be one of the promoting factors for an effective collaboration. In such a situation there is a personal interest and motivation for exploring the answer to an organisational problem.

> "...to the nature of the organisation and to the nature of our member organisations where it did not seem that they {university} could or we could develop this very far on our own, because we would keep using the same words and the same language about working together, and what we are doing now is full of positive messages. " (MCPC).

And the Joint Collaborator Practitioner in this collaboration added her perception about entering into this research collaboration with academics in 'C' University:

> "...I think that alongside that, we have brought something in by working together, we have been involved in different types of collaboration, we wouldn't have any shape if we did it on our own." (JCPC).

Process of research collaboration

How did this process of 'working together' happen in practice and what were the next steps?

> "...and eventually we made a contract with the business school at the University of 'C' where they were undertaking a programme of work using the term collaboration. So, that is how the use of the word is derived from their use of the word, and they have been working primarily with business or with local authorities on collaborative processes..." (MCPC).

The collaborator practitioners' involvement in this case started from the first stage of clarifying and crystallising the question of research and continued by participation in writing the research proposal, and direct involvement in conducting the research.

> "We had one or two informal meetings to say that we are interested in this area and was there anything in what they were doing that might be helpful to our members...we had one or two informal meetings just talking generally about the area and we clarified and crystallised the question...and our question was how can you address collaboration with groups of people who may have different external pressures on them?...so, that was where we started." (MCPC).

The director of 'C' organisation in response to my question about the extent of their involvement in the different stages of this collaboration explained:

"We wrote the project together from the start. I wrote the application too, at the beginning of planning when the application went to a number of places, not just the ESRC. " (MCPC).

And ' JCPC' added: "I was only involved in the discussion."

Since they have been involved in the process from the beginning of this research, they were more aware of the aims of this collaboration, their interests in the subject and their expectations from this joint work. They felt more confident about their intervention during the process of collaboration as a member who had a share in achieving the agreed aims of the research project:.

"I think that the other starting point is really the listening to 'PR' and Joint Researcher 'JR' from the 'UC' business and management school. We were able to see that this business of collaborating could be a process that people could think about consciously. Most of our members' description of their problems seem to be that they have gone with very good will to work with other people, and not always, but often it seemed to be a lot of problems. So, they couldn't control or manage {the process of collaboration}. So, we were interested because here seemed to be a way of saying, well, you could think of how this process is conducted and you could influence possibly how it happens. So, we were attracted to the technical side of the discussion about the collaboration as a possible tool for communities to use in working amongst themselves and with others. So, that is how we came to be involved." (MCPC).

It is again a proof of the interest of practitioners in the subject of research collaboration and their need for an external help for solving their organisation's problem. The emphasis of the practitioners on their attraction to the technical side of discussion about collaboration seems an interesting point, because usually this is the practical side of research which is of practitioners' interest. But as we notice, this technical side came to their attention for its practical use as a possible tool to be applied by communities for working together.

Joint Collaborator Practitioner in this case (JCPC) referred to a different aspect of the origin of this collaboration:

" I think this may be another dimension. In that time, at the 'UC' one of the students was exploring a fellowship and they wanted to do some research in the communities and that matched up with what 'MCPC' has been talking about... so, through the work in partnership we were allowed a resource too. Actually, go and talk to local collaborators, and each member of these collaborations, about why they were members? What they were getting out of it? How they accounted back to their organisations? What they could achieve more as a collaborator rather than could achieve by their own organisations, just the general statements of working together. So, that was beneficial at the time. " (JCPC).

This is a positive point that both sides can be able to realise their role in forming the collaboration and the benefits of 'working together'. This can provide a better understanding of each collaborator's contribution in the process of research collaboration.

> "And we both have demands on the outcome as if it feels to us that there is too much thinking going on, then we will go to our next discussion and we would say that where we do not believe we are getting anywhere or we have to come to a point of decision or whatever, and that is different to the stereotypical picture of the research. We feel that we are a part of the management of the project...We came to the university with the questions, they had questions and we found some of our questions in common and I think we had a joint explanation of the questions. We did not have the ability ourselves to bring to question the academic spirit, all of the whole background of knowledge and experience about collaboration. So, we could not explore our questions very far on our own, but we have insisted that our organisation will go on behaving as it wishes to behave. " (MCPC).

It seems that there are some more themes for reflecting the practitioners' perception of research collaboration, for instance, mutual demand for outcomes, coming to a joint explanation of the main question of research , working together closely and influencing the whole process of work. An interesting point in this regard seems to be the interest of practitioners for keeping their professional independence and identity.

> "...so, rather than performing for the academics, we bring our own systems of thinking about things into the process. So, then we sit down with 'PRC' looking at how we are going to make this work meaningful to people outside our work. We actually share that question, we do not come to find out what they have done about answering it, we are interested in that, but it is not the only reason that we are sitting there, because there is a demand for us and we have worked very hard to understand the questions in a rounded way and to make contribution to exploring the possibility of answering them..." (MCPC).

Learning process

The learning process is one of the most important aspects of research collaboration between academics and practitioners. It can be one of the effective tools for developing long-term relationships and a positive factor for facilitating future opportunities for working together. Learning may mean different things in different situations and contexts of research collaboration between academics and practitioners, such as learning about the process of research collaboration, learning about the subject of collaboration, learning about the professional characteristics of the other side of collaboration, and also learning about the potential expectations from research collaboration.

"When we had our first contact with the university, we did not have in mind that we might do a joint project of work with them, it was not there at all, as I said, we did not have an academic interest in the first place and we were lazy. So, if they could have handed us a book which said that, this is what you are going to be doing, we would say it is true, we would set up a research from the little book that we had just been lent. So, our working process with the university has been gradually a developing one, possibly over a period of a year before we came to an agreement about the project." (MCPC).

When the same question was raised with the academic researcher to find out more about the process of this collaboration, there was again some reference to the different levels of collaboration and mutual learning opportunity.

'PR' considered the learning process through their special relationships with the collaborator organisation and its specific characteristics:

"...this organisation is a rather unusual organisation, a very unusual organisation, because it is an alliance of organisations, about 400 of other organisations which are aiming in some way tackling poverty in the ' C' region." (PRC).

Then, she continued by explaining the details of their relationships in different levels of this organisation and what the learning opportunity was. There seem to be several mechanisms which had been applied to increase the opportunities of a two-way learning:

"So, we run a workshop, a two-day workshop for them, but again it was not collaborative in the sense which we talked, but it was again us trying to help them to do what they needed to do, and through that could learn something about the alliance and alliances' work and that is the second thing we have done with them. We are designing, we are working with some of the salaried employees, the employees of the alliance, people who are the centre of the workers. We are working with them on the project which is collaborative, in my sense, because we are jointly developing something with doing research. What we are developing there {at the moment} are training tools for training groups on how to collaborate effectively and then the fourth group of people that we shall be working with very shortly are people who are coming from the other organisations who want to know more about how to act as a collaborator. They will come to learn something and we can also learn from listening to something in this."(PRC).

What seems important in this project is the nature of the organisation's activities and the problems which they are confronted with. Obviously, the research interest of academic researchers at that time had been very close to the practitioner's interest. Although this situation is not a common example in the practice of research collaboration between university and other organisations, this research project is itself an investigation into the nature of inter-organisational collaboration and the

research has been carried out from an action research perspective. Both of these factors can increase the sensitivity of the involved parties to the process of research collaboration, and their intervention in the different stages of this process. While it is difficult to generalise the findings of this case, we may use the richness of this two-way collaboration to understand how future collaboration between university and 'other organisations' might be encouraged and facilitated.

We talked earlier about the importance of the existing need of the collaborating organisation for entering into collaboration with university, but what was the direct need of the collaborator organisation and how was this need fulfilled during the period of collaboration? The Collaborator Practitioner explained:

> "...we began with a simple question that we had and our *direct need* and we went to understand that this was a world that other people were exploring and researching. I do not think I have come across operational research in any detail while I was aware of. So, I think we had a process of learning about the people out of the university, who were they? What did they do and what points of common interest do we have? I am sure that the question that we had, and we identified, was: 'how do you develop collaboration amongst an informal group as compared to some other groups'? It was our question, but it obviously interested the people of the business and management school, so somewhere around there was the possibility of looking into that and getting some resources to look into it." (MCPC).

The developing nature of the question of research through a learning process about the academic collaborators' position and their knowledge seems the essence of the above statement. As we can notice this learning was based on searching for the mutual interests of both sides.

If we assume that each process has some outcomes at the end (positive or negative), learning through the process of collaboration can be one of the 'pre-outcomes' (my term) of research collaboration and will be turned into an invaluable input for the future relationships. It is an outcome which is gradually developed and achieved during the life of collaboration, not necessarily as an end product of this process.

There is a consensus that good relationships and a high level of trust between partners are necessary elements for achievement of learning through collaboration (Lundvall, 1988, Buckley and Casson, 1989).

The Collaborator Practitioner in this case explained:

> "We have become educated over the time that we have been involved to appreciate more of the complexity, which is the word that our colleagues at the university would use...so we realise it is not quite as simple as that. But, on the

> other hand we are not interested in a world of opening questions without answers, so we do want them to move to a close, where there is something to show and I think we would realise that there is not going to be quite the complete product that we might have imagined. My thinking is that we may well be looking for some more resources at the end of the certain period of time which will be very practically oriented to turn the findings of this work into practical material, but then we should not still be addressing the basic questions of what would that mean. It should be a technical job of producing the practical output." (MCPC).

As we see, although this is the same point that is mostly the core focus of the arguments about the difficulty of collaboration between academics and practitioners - different expectations in terms of practical outcomes from practitioners' point of view and theoretical outputs from the academics' perspective - it also illuminates an evolving process of learning through the research collaboration.

> "So, I would say my perception of what the purpose of the collaboration is from our point of view has shifted because of learning about the issue and it has included a challenge to our colleagues to say that we want an application and that is why we are involved and we do keep moving towards that point, that is our knowledge to keep raising the question about application, application, application." (MCPC).

Learning about these differences is important and crucial in researching within a collaborative framework. The above statement illuminates the point that the nature of practitioners' activities is completely different from academics, their priorities are dissimilar from the people who are working in universities for teaching or research. Teaching and research are mostly the major tasks of academics in universities, though getting involved in the research process is a very minor part of the practitioners' activities, and they are involved in many other routine tasks. Sometimes they need to make a decision immediately. This is the place that needs a realistic approach by academics about the expectations of practitioners. They should perhaps try to explore the practical mechanisms to convince practitioners of the benefit of research collaboration with academics. This would not be possible except by showing them the benefit of the practical outcomes of research for their work. This bridging between theory and practice is not an easy job if academics cannot understand the perception and expectations of practitioners from the research collaboration and vice versa.

Barriers to research collaboration

What were the subjects of the conflicts? How did they solve these conflicts? Which side had the main role in settling these conflicts?

Through the data analysis of different stages of this collaboration, many other aspects of this process can be detected. For example, the obstacles to the research collaboration between academics and practitioners, the possibility of coming to the crucial points which retards the progress of working together, and the ways in which these crisis situations can be overcome.

> "If we had not met people personally and been able to speak in simple language about our common interests, we would never had found the point of working together, because the written materials from the department are very intelligible from our point of view, as I remember that the first paper I picked up to read, I had to think, um! how can this possibly relate to me." (MCPC).

The differences between academics' theoretical language and practitioners' practical language has been mentioned in previous cases as one of the barriers to the research collaboration. This difficulty was highly significant in the data gathered for case study 'C'.

> "...so, I think if universities are interested in developing these kinds of partnerships, then they could produce some more simple accessible information which says that basically we are interested in how people work together and how this could be improved. We had begun to learn the language of the academic and we can also relate to it with closer movement to everyday issues, but we never circulated any of the papers to our members. Generally, we have never said that this is really interesting, you read this and you will understand why we are encouraging you to become involved. We act in between that description and our own members, to translate." (MCPC).

What was noticeable in this case was that the practitioners involved in the process of collaboration themselves were playing the role of the agent and facilitator for other members of this alliance. A question which might be raised here is: 'does any collaboration between academics and practitioners need a translator to put the academic writings into more simple and accessible words in order to make the relationship and the flow of information possible?'

The Joint Collaborator Practitioner explained the nature of mismatching between academics' approach and practitioners' attitude towards solving the same problems.

> "What I was going to say is that quite often in particular relation to organisation and community groups, if we come into a particular stage, it may be a crisis that they would bring somebody in, who they think has got some expertise in 'working together', and what we found was that there is a very mechanistic

> approach that these people tend to have in addressing issues of collaboration with the groups, so there is a place where they would go through and then would go to try and think the answers, and I have got to admit that when we started working, I began to recognise the nature that was in the process." (JCPC).

It is worth noting that in some occasions, because of a negative experience of previous unsuccessful collaboration, trust building for an effective relationship would be difficult.

> "...we were talking before about a previous involvement in university. I have not been with the alliance but I have been with the organisation, and that was an action research project with the university and that was very difficult work because the rules were like *icons* for both parties." (JCPC)

It can be an indirect reference to the barriers of collaboration between academics and practitioners - 'rules were like icons for both parties'. This previous experience of JCPC can be an example of collaboration which indicates the lack of communication between two parties and inflexibility during the process of 'working together'. It may take longer to change the previous judgement of practitioners, which they bring as an input into collaboration, but we learn from this case that if they believe that their needs are going to be fulfilled by involvement in the research collaboration, they may still welcome the idea of working together with academics.

> "...I think in terms of collaboration in 'C' University we had a real need and I think what has made us very confident about working with them was that they had helped us to articulate what that need was." (JCPC).

'MCPC' continued his colleague's statement and addressed some of the other aspects of working with universities on the subjects which were of interest to them:

> "I do not think that we would enter into research with an academic institution, simply to meet the objectives of academia. So, we would only seek out those situations where we could work collaboratively with people, but having the possibility where you are saying how important is it to be there. We are sitting next to the doors of three universities. We are surrounded with universities here, there are all sorts of questions that I have about aspects of our work, about issues of economics, food, politics and other kinds of issues which people are working on, not far from me, and it would be quite good to know which of those people are interested in working collaboratively with organisations like ours on certain issues, because it would mean it would not have to be so accidental for that to happen in a bar doing something else. So, we would like to say that university should be a resource for the community. The community pays for the university and there are many situations where communities are dealing with very difficult complex problems and issues and they do not know the extent to which the university is or is not a resource for them. So, something which helps to increase the access, I think , could be very important." (MCPC).

This point might be of interest to academics in that if they could create new opportunities for increasing the access of practitioners to the knowledge and expertise which is accommodated in universities, then the probability of attracting the interest of non-academic organisations for collaboration would be increased. What seems helpful is providing some kind of mechanism for encouraging this process and ensuring its continuity and effectiveness. It also seems that a lack of communication between academics and non-academic users of their research is an obstacle in bringing them together.

> "...it is quite important to know something about the interests that researchers have in addition to a particular topic that they are interested in researching, because it was important to us to learn that the people of the business and management school had some previous involvement with voluntary organisations or with the community groups. That did not mean to say that we could necessarily work together automatically because of that, but imagine we would have some common ground that we could talk about with them to make our own evaluation as to whether they were basically sympathetic or understanding and whether they would create problems in our work or contribute to solutions in a way. So, to the people side of it, I think it is absolutely important and I think of it because with the group of people working on this project we get on quite well as people." (MCPC)

There is also an interesting point in the above statement and it is referring to "working with the groups of people as people". It is worth noting that when we are talking about collaboration between university and other organisations, these are *people* who work together and it is because of this point that the quality of relationship between the involved individuals becomes a vital element in the success or failure of collaboration.

There is always an argument about different interests and different cultures of practitioners and academics. The fundamental problem of research collaboration is one of difference, differences between nations, differences between institutions or organisations, and differences between individuals (Dearing, 1993). Dearing argues that an assumption of difference-reduction is always the base of negotiating these differences. If these differences are an inevitable element of each group and their activities, then we have to try to explore various types of these differences in different situations of collaboration. When we emphasise these differences, what do we want to get out of it? We may accept that these differences make an obstacle for achieving a common interest between practitioners and academics in the process of research collaboration, but what we need are the mechanisms by which we can reduce the barriers which exaggerate the existing differences.

> "I think this is an interesting question that you asked, and it is about different cultures and as I said earlier on, we were aware of operational research as something which goes on, but nothing more than that really, and we have begun to be introduced to the world of the operational research and we observe our colleagues at the university as to what interests them, you know, what excites them and they held a conference which we were able to go, but could not go to because it was in another country, and that there are clearly a lot of issues for them about academic status, the intellectual ownership of ideas and all of these things which are extremely important to them which are not our world." (MCPC).

An interesting point was the practitioners' reflection of the interests of academics. It seems that they have explored something new. I would like to note that this can be a positive aspect of the learning process about the other side's differences and it can resulted in a better understanding of future opportunities of research collaboration.

Expectations and conflicts

As discussed earlier, practitioners in this case explained some reasons for entering into this collaboration which in a sense could be an indicator of their expectations during the process of collaboration and at the end of the work. When they responded to the question 'what is your expectation from this collaboration?', two points were raised: first, their general expectations, and second, the difference between their expectations before and after entering into this collaboration. The Joint Collaborator Practitioner referred to their general expectations before entering into this process and the director of the collaborator organisation (MCPC) explained about the process of 'working together' during this collaboration and how they got a different insight into the nature of research collaboration with academics. As he mentioned earlier, this was their first experience in working with academic researchers in a collaborative way. Considering the relationship between the motives and expectations of involved parties, the analysis of this case indicates the crucial points through the process of this collaboration:

> "I think when we started we had a picture that by the end of this project there would be some physical materials, video materials, written materials, tape recording, whatever, that we would be able to use directly or to give to be used by our member organisations and I think we had a process in this collaboration, where we had to assert that, because there was definitely a point where I wrote a piece of paper which basically said: well, if you are getting what you want out of it, you have got your money from the ESRC, your PhD student from the project, and you seem to be very busy, we cannot see if we are going to have anything to show for this at the end of the time that we could have given to one of our members or to anybody else. So, we did confirm that with them and that was the beginning of a piece of group working and we put the focus on how this can be turned to mean something to people." (MCPC).

Sometimes practitioners feel that they are used by academics. If academics cannot deal with this feeling, then practitioners may not care about the process of research and its outcome. In such circumistances, research may goes in one direction and the practitioners' interest in the other direction and no collaboration will occur.

> "It is a very interesting experience because we were looking for someone somewhere to help us with a set of issues to broaden our thinking, to bring in new ideas and so on and it could had been a library or a television programme. It happened to be some people in the university and we did not begin this work by identifying any university or an academic institute as possible partner for addressing these problems. So, in that sense we found ourselves in the university talking to people about a common interest that we shared and we had kept that dialogue going." (MCPC).

What seem noticeable in the explanation of MCPC are the points which indicate the signs of emerging conflicts and, a feeling of being used by academic researchers:

> "Somewhere along the way we realised that we were participating in a collaboration and that we were collaborating with very experienced collaborators! I think that was the point at which we decided to be very open about the anxieties that we had been developing because at that point the collaboration was not working for us, and we were feeling used...suddenly we were looking at this issue of collaboration between the university and other agencies. We didn't go into that consciously thinking about that process that we were doing and it was only along the way that we realised that, that was in fact what we were doing, and I am sure that we learned a lot from it. Without this relationship we would had been so naive in future relationships." (MCPC).

This is one of the revealing findings of the study through the process of this collaboration. The complexity of the nature of relationship between academics and practitioners, the reasons which may slow down the progress of collaboration, and the role of openness in dealing with these bottlenecks. An interesting point in the practitioner's statement was his welcome to my questions about the process of their collaboration with academics in university.[5]

> "...that is why your questions are very provocative because we would not have to sit down and talk with anybody else about the nature of the working relationship with the people in the university." (MCPC).

Despite all the mutual needs and interests of both sides which are evidenced by this case and their attempts for improving their relationship, we can notice that research collaboration is not as simple a process as may seem at first. The different focuses of

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[5]During the follow-up interview this practitioner said that he had requested the university (UC) to introduce a researcher for the evaluation of their collaboration with academics. At the time of follow-up interview, this request had not been replied to.

academics and practitioners, the different cultures of these two groups, and their different expectations of this process make for a complex situation. This situation needs attention and flexibility from both sides. As is revealed by the above statement, there could be some crucial points which require a closer relationship and a broader two-way communication for the assurance of the continuity of collaboration.

Definition of collaboration

'What does research collaboration mean?'. This was one of the specific research questions in this study, and the importance of gaining an answer to it from practitioners' perspective was an indirect check on the collaborators' perception of the whole process of research collaboration:

> "I think an important thing is that we were involved in identifying the research question and I think that it is very crucial, not the matter of some academics saying 'we are interested in researching this and we are to be working with you for a while, because it may be quite a good way to do things', but that we were able to identify a question together out of some conversations where we could see that we had common ideas, and we defined them in different ways and we needed to assure an impact on them in different ways. We were not interested in just helping the university to produce a fine academic report, but nor were they interested solely in having an academic report, they were interested in having an impact on that in some practical way. So, on that basis we were able to talk about what would be a useful focus for some joint work and to me that bit of the process is what can be described as collaborative research." (MCPC).

Again, what is obvious through this practitioner's answer, is the importance of being involved in identifying the research question, finding out about the common ideas on the research question, and assessing the mutual need of both sides for creating a better outcome of this process. The perception of practitioners of the nature of collaboration and their role in different stages of research, and their share of outcomes of research seem to be significant factors for the satisfaction felt by collaborator organisations with research collaboration.

At the end of the interview, once more, the views on the learning outcome of this experience were explained in order to determine the involved practitioners' perception of this process. They were asked: 'if it was supposed that you, again, enter into this collaboration with the university, what changes do you think would be necessary to make in this process?'.

> "I feel that may be having an evaluation mechanism which could be a part of the initial agreement, that here is a set of questions that you ask after six months or

> nine months, or a year or whatever, having one or two points fixed with a preceding agenda, but not a closed agenda, so that you are looking not at the outcome but at the process. If I were to go back and to add something else, it is some more input at the early stages about the methodologies and the values of the researchers - we learned a lot from people over a period of time and I think we have been very fortunate, but we spent a lot of time explaining ourselves explaining our organisation, explaining our values, and explaining our methods, and what people were doing and so on and so on. I would think now there are, may be, quite a number of things we could have learned early on that we would deal with. Regarding what came to be frustrating about where we were getting to, may be some earlier setting out would have helped with." (MCPC).

It is worth noting that there are three points which may affect the interpretation of this answer. First, we can notice the reflection of a new experience of collaboration for this practitioner in which the academics are the other side of the collaboration. From another aspect, this statement provides a picture of the learning process by which some parts of the results would be used for future relationships. The second point is the common concept of the conflict between the interest of academics and practitioners. As we see, despite the information gathered about this case through the interview with both sides which concludes the overall success of this collaboration, an indirect reflection of the occurrence of crucial points during the process of collaboration is apparent. The vital role of time for achieving the mutual understanding of each other and building up a fruitful relationship is evident through the process of this collaboration. The third consideration is the demand for an evaluation mechanism which was expressed earlier in this case. Of course, the procedure and the selected criteria for such an evaluation would be a subject of concern which needs further studies.

> "...you have a line of accountability, as in broader areas of work involved in, to the board of directors within the alliance, but there is not an advisory group that you go to and evaluate what we are doing." (JCPC).

'MCPC' (after some moments of silence in which he obviously was thinking about the issue of evaluation) added:

> "I can see that it could be helpful. In our own experience we have been able to talk to people who we have been working with, about progress and as I described, for example, say we do not think that this is working for us and we have been able to address that in a constructive way, so I personally have been quite satisfied with that and if that had not been possible, I am not quite sure what any other agency or any other grouping could do. I am thinking in our particular terms, generally, I could see how you could set this kind of thing up, but in practical terms I think it is necessary for the people who are closely involved to be able to be honest with each other and direct and explore these things." (MCPC).

Principal researcher's perspective

It may be questionable why I chose to analyse the process of this and the two other cases of collaboration from the practitioner's explanation. What about the viewpoint of academics involved in these projects? There are some reasons for this decision. During the interview sessions it was very noticeable that the academics and practitioners had different approaches to the questions. Academics' answers were mostly examples of technical discussions about the subject of their research. Most of the time their explanations were quite general and it was noticeable that they were not very concerned about the details of the process of their joint working with practitioners, except in the situations where they believed those points have some relevance to the theory of their research or the chosen research methodology. In other words, the different frameworks of answering and focusing on different issues were clearly obvious during the interview. Practitioners were more sensitive about the details of their relationship compared to academics. It seemed to me that they were talking about the process of exploring a new world - the world of academics. From the other side, when the academics were explaining the experience of working with practitioners, what were dominant in their focus were the technical aspects of their research rather than the process of collaboration, though the academics were clearer about their aims and purposes, and their expectations from their collaboration. The answer of the Principal Researcher (PR) to my opening question about the definition of research collaboration indicates this difference:

> "I have a particular difficulty in answering your question, because my research topic is collaboration and it is very difficult for me to say anything about collaboration without wanting to get into all of that...I am very interested in research methods and I am not sure if you are talking about the things in the literature that is named as collaborative research or you raise the term more generally, just to doing research with the organisations...it is terribly difficult for me to answer, because it is my research topic." (PRC).

This is why I preferred to use the contents of practitioners' interviews in this case as a base for analysing the process of collaboration, which were more detailed and revealing in respect of the process. So, I used the data gathered from the academic's interview as supportive information for discussion. As mentioned earlier, the focus of the answers was mostly on the technical aspects of collaboration.

> "...I can answer this question in so many different ways. First thing to say, is that there is a thing called collaborative research which is a paradigm, a research paradigm which my understanding of it is about getting research insights out in collaboration with client, and in another word, the client is part of the research team, and the researcher is a part of the client. It is usually a participative research and there is a scientific method plus a scientific terminology, and some

> of what I have done actually has been in that style, but a lot of it is not collaborative in that sense..." (PRC).

The methodology of research could be one of the main factors which determines the type of practitioners' and academics' involvement in the process of research collaboration. So, it is worth noting here that when we talk about the effective process of research collaboration between academics and practitioners, it does not mean that it is the only way of fruitful academic research. The Principal Researcher also emphasised this point: "we are not always expecting the client would be a part of the research team."

Our conversation about the meaning of research collaboration, its diversity and the domain of this case went on further and 'PR' pointed out:

> "If you look at the broad literature on collaboration, people use that terminology, not just in a research context, but in general to cover a broad range of diversities and a lot of people develop hierarchies. They relate collaboration to co-ordination, to co-operation, to partnership, and all these things in hierarchies, the trouble is that nobody agrees on what the hierarchies are. In terms of collaboration we just talk about working across organisation boundaries, but you are talking about a very specific context on collaboration - research collaboration." (PRC).

Although from one side, the above mentioned diversities of 'working together' and its conceptual arguments are generally related to inter-organisational collaboration, these notions could be useful for exploring the characteristics of the process of research collaboration as a specific context. From the other side, research collaboration between university and other organisations has some distinctive characteristics which demand more consideration. Finally, when we talk about the effective process, there may be a new look at the research collaboration, by which not only the input and output of this action and reaction are investigated, but the throughput or process of this collaboration has to go under scrutiny too. If we ignore the process of this collaboration, then there would be a big gap in our understanding of the whole picture of this phenomenon.

Successful research collaboration

The factors which can contribute to making a collaboration 'successful' have been the focus of much relevant literature. After more discussion on the different aspects of management research and consultancy, the characteristics of successful collaboration in this case were probed. What were this academic's criteria for a successful research collaboration?

"I think that both sides have to get something out of it, and so the organisation has to come away from a relationship, thinking that it is better off in some way and so it will change the way it does things. But, I think that is necessary anyway as a novel thing to get involved and bring organisations in and they should believe that they can get something out of it...I would judge the validity of any results I get partly on the basis of the organisation I was involved with, thinking that I was useful in some way, but we cannot really measure these things. The problem with this kind of research is that you have to set up a whole range of understanding about what validity means. It is very different from standard validity in research where you do multi-questionnaires, because you are working in only one situation, it is not this big repeatable kind of research or big sample research. It is very difficult, very often, to measure. You can do something to evaluate the output. For example, one of the things we are doing is developing this training questionnaire and we shall be sending participants questionnaires and asking them a whole range of questions about the different value of collaboration for them. So, in a way that is a measurement, but it is a very loose sort of measurement." (PRC).

The concept of the difficulty of measuring the success of research collaboration needs more consideration. There are several factors which may affect the judgement. This notion has been referred to earlier in cases 'A' and 'B' and has also been developed through preliminary discussion in chapter four based on the supplementary interviews in this study.

There is a point that we have to make clear here, and it is the distinction between success of research and success of research collaboration. Although findings of this study show a great amount of similarity between academics' general criteria for judging the success of their research and their expectations from a successful research collaboration with practitioners, there are some additional factors which make a difference between successful research and successful research collaboration. For example, collaboration in the latter case demands considering both sides' benefits during the term of collaboration and at the time of completion of research project, whereas in the former type of academic research there is not any consideration of the practitioners' immediate benefits.

Motivations and Expectations

Finally, for the purpose of comparing the motivations of academics and practitioners for entering into research collaboration, the same question was raised to find out why the academics of case 'C' entered into this collaboration. What were their incentives?

"Our incentives were to learn more about the topic of our research and the reason we like to do it in this way is that we can almost get a rich insight out of working with an organisation to make changes through action. You can get a

> whole range of insights that you cannot get in other ways, that we won't just get by only doing questionnaires because we pick them out as people who really are making decisions about what to do in practice, and we just think that it is in an appropriate way going about research in the kind of areas that we want to be, it does not mean that otherwise that is invalid." (PRC).

The above statement shows a common combination of motives for academics for entering into collaboration with practitioners.

If the motives of academics for doing research collaboration are different from those of practitioners, how about their expectations from this collaboration?

> "What we will hope to get is a series of generalisable insights about the topic of our research which we can take into other situations and which will be meaningful to other people in similar situations and we hope to find a way of conceptualising them such that they would be useful to other people" (PRC).

It can be an advantage if we gain the two sides' understanding of each other for giving a whole picture of similarities and differences. So, a question was raised to discover the perception of academics about the practitioners' expectations from the collaboration.

> "...on the one hand there are a set of expectations, I think, about doing what they do better, because we have been there to help them and that is the main expectation. A central part of our client group is very interested in this project, because their whole reason for existence is concerned with this topic. Our organisation is there to foster collaboration and do research in collaboration and they also want to get out of this an understanding of the topic of the research. So, they have a genuine interest in the research as research, as well as an interest in the consultancy, but some of the people that we work with are only interested in the consultancy bit." (PRC)

The reasons for the preference of consultancy over management research with the majority of practitioners are diverse. Some part of these objectives goes back to the other factors, such as the nature of the organisations' activities, the necessity of making immediate decisions by managers, or unfamiliarity with the nature of academic research. These considerations have been discussed earlier in chapter four.

Conclusion

This case was an example of a collaborative research project between management academics and non-academic users of their research. Two distinctive aspects of this project were the chosen methodology of research which was an action research perspective, and the nature of the collaborator organisation's activities and the

subject of research both of which were focused on inter-organisational collaboration.

Academics and practitioners in this case had come together by informal contact through an event which was the attendance of the director of the collaborator organisation in 'C' university for a completely different purpose. We can trace the presence of some factors which acted as preconditions to this collaboration. The coincidence of the importance of the subject of research for both of collaborators at the same time and an agent who enabled them to meet with each other, in addition to geographical proximity seem to be the primary conditions which brought the collaborators together.

The collaborator practitioners' involvement in this case had been started from the first stage of clarifying and crystallising the question of research and continued by participation in writing the research proposal and by their active involvement at the stage of conducting the research. This provided an opportunity for close interaction between collaborators which revealed some interesting insights into the process of research collaboration.

The motivations of practitioners for entering into this collaboration were mainly based on their organisation's internal need for finding an effective way of collaboration with other organisations. This need partly resulted from an external force: 'the government's message about working together, bringing their resources together, and targeting the resources effectively'. The practitioner's professional interest due to his responsibility for responding to this message and his previous experience of challenging the problems in this way seemed to be the other motivations. Effective research collaboration from the practitioners of this case was perceived as having a mutual demand for the outcomes of research, coming to a joint explanation of the main question of research, working together closely, and influencing the whole process of work. An interesting point revealed through the study of this case and that was the significance which practitioners attached to keeping their professional independence and identity during the process of research collaboration with academics.

Barriers to this collaboration were mainly based on the different culture of academics' and practitioners' world, their different priorities for doing research and diverse expectations for the outcome of research. Although both collaborators agreed on the mutual benefit of this collaboration, the differences referred to,

created several situations of conflict in some points of the process of collaboration which could slow down the progress of working together. For example, the practitioner of case 'C' mentioned a point in which they thought the collaboration was not working for them and they tried to be open about this problem in order to improve their relationships. A lack of communication between academics and non-academic users of their research in organisations was also reported by the practitioner as an obstacle in bringing them together. The need for the provision of more simple and accessible information by universities for non-academic users was another consideration which was mentioned by the collaborator practitioner in this case.

Learning was a progressive process during this collaboration through the active involvement of practitioners. The collaborator practitioners reported the outcome of this opportunity of working jointly with management academics as a worthwhile experience for future opportunities of collaboration. The case showed that learning through the process of collaboration cannot only be one of the 'pre-outcomes' of research collaboration, but it may act as an invaluable input for the future relationships. In other words, learning seems to be a growing process during the life of collaboration.

From the academic's perspective, research collaboration would be successful if both sides get something out of it, though this academic confirms that it is difficult to measure the success of collaborative research projects due to the intangible nature of the results. According to the academic, their prior motivations for entering into this collaboration and involving non-academic users in the research project were mainly those of learning more about the topic of their research by picking out people who were really making decisions about what to do in practice, and also getting the opportunity of a whole range of insights that they could not get in other ways, for example, administering questionnaires. The academic of this case also indicated the difficulty of research collaboration in practice and the incompatible expectations of practitioners from this type of joint work with academics.

This case provided us with a better understanding of the evolutionary process of learning within this collaboration and the emergence of the potential basis of conflicts in the complex nature of relationships between academics and practitioners.

The main themes of research which came out across the three case studies will be examined in the next chapter of 'themes and comparison'. These, alongside the findings of the 20 supplementary interviews (chapter four), will be input into the concluding discussion of this thesis.

CHAPTER 8
THEMES AND COMPARISON

This chapter is designed to offer a more comprehensive and systematic comparison between case studies of collaboration between management academics and practitioners. How did the academics react to the research questions? How did the practitioners react? What were the main similarities and differences which emerged from the main themes of research?

Analysis of data through chapters 5 to 7, not only showed the experience of three different cases of *collaboration* between management academics and practitioners, but also revealed some additional themes relevant to the process of collaboration. These themes emerged during the analysis of responses to the interview questions.

Turning to specific research questions in this study may provide a better background for our discussion. These questions are as follows: What is the definition of research collaboration? How did they come together? What was the motivation of each side for coming into collaboration? What happened during the collaboration? What were the barriers to collaboration? What did they expect to get from their collaboration? How did they indicate the success of collaboration?".

In order to facilitate reference to the case studies in this chapter, the same abbreviations of 'A', 'B', and 'C' will be used for each of the cases and also the related data.

The collaborator organisation in each case is as follows:

Case 'A' a multi-national world-wide corporation in the food industry.

Case 'B' an insurance company.

Case 'C' a community-based organisation.

All of the collaborator practitioners in these cases were professional people in management positions.

The collaborator academics were also experienced professors in their field of study and from management departments of well-known universities in Britain.

According to data analysis across case studies, there appear to be some common issues that come out repeatedly during the process of interview with academics and practitioners. This can frame a general pattern of themes which is classified under a two-group category as follows:

1. The prime perception of collaboration

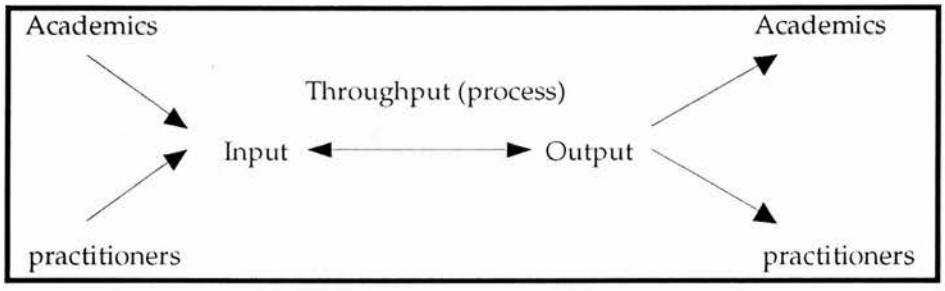
2. The experience of research collaboration

The prime perception of collaboration

A framework for discussion

In a way of thinking, we can imagine a framework for discussing the process of research collaboration between academics and practitioners. Figure 8.1 shows a schematic image of this framework.

Figure 8.1 A suggested framework for discussion on the *research collaboration between academics and practitioners*



Research collaboration is a two-way communication. This communication usually occurs between individuals - academics and practitioners - rather than their organisations. So, when these people want to enter into collaboration they have a prime perception and understanding of collaboration. They also have a preceding judgement of collaboration which is usually based on several factors, such as collaborators' previous experiences of 'working together', the nature of their organisations' main activities and its surrounding environment, the nature of in-house research in the collaborator organisation and personal attitudes of collaborators towards collaboration. The three case studies showed a similarity in terms of the existence of a prime perception of research collaboration which is

transferred as an input into the process of collaboration by both academics and practitioners. For example, when a practitioner has a previous experience from an unsuccessful research collaboration, then s/he seems to be more doubtful about the usefulness of entering into collaboration with academics. As we found in case 'A':

> "When we were trying to get the professor from the MIT to deliver certain themes at certain times we found that very difficult because he had his own agenda, even when he had agreed to do certain things by certain times, it did not happen." (CPA).

A common prime perception of practitioners which came out from the case studies was the unreliability of academics from practitioners' point of view. As we discussed earlier in chapter 5, the perception of practitioner of case 'A' in this respect was very much influenced by his previous experience of working with academic researchers in another university and on a similar subject.

Another theme which emerged from interviews with practitioners was the ambiguous agenda of academics for doing research collaboration. Practitioner collaborator of case 'A' points out:

> "...when they {academics} come and do work with us, you are never entirely sure what the agenda is." (CPA).

Collaborator practitioner of case 'B' refers to a similar point:

> "Some years ago, I ran my own business and a well-known university offered an advisory scheme for businesses wanting to set up computers, and they did not give me the information that I needed and they were not prepared to say this is what you should be doing." (CPB).

One of two collaborative practitioners in case 'C' whom I interviewed mentions her previous experience of working with academics:

> "...we were talking before about a previous involvement in university,... that was an action research project with the university and that was very difficult work because the rules were like *icons* for both parties." (JCPC).

One of the other themes which emerged in relation to the prime perception of practitioners in these cases was the extent of their belief in the usefulness and impact of academic research on solving their managerial problems. Regarding the analysis of data in chapters 5 to 7, comparison of case studies shows some differences in this respect. The practitioner of case 'A' who is from a multi-national food industry firm shows a lower propensity in asking academics' help for research on his organisational problems than practitioners in cases 'B' and 'C'.

"...I mean nowadays if you do not know what to do or you know what to do but you think it is going to be difficult, you would use consultants. So, you go to consultants when you do not know the answer or you know the answer but you want somebody else to take the blame for implementing it...I suppose in business it takes too long if you say, well, I am going to do this research now and then I am going to do some development and then I am going to do some implementation. what you want to do is to come in and examine the problem, implement and get it done." (CPA).

The above perception that academic research is not suitable and helpful for implementing its results in a short-term perspective may be constructed from two main reasons: first, the different nature of internal and external environment of organisation 'A', compared to cases 'B' and 'C', and second, the previous unsuccessful experience of this practitioner of working with academics on a joint research project.

"...maybe business survival in the medium to long term is Darwinian in the sense that some of the fittest survive and what makes you fit at one point of time makes you think what makes you fit in 20 years or 30 years time, so if the climate changes, then may be the big dinosaur does not survive under a smaller operation. But it is not evident that a firm would go to a government or university for advice and guidance on how to manage." (CPA).

This practitioner's emphasis on the crucial role of change in surrounding economic and technological environment, may explain his uncertainty about the usefulness of academics' or other sources of outside advice in the competitive conditions of their business. The priority of R&D projects in this company and its in-house research laboratories with totally different projects from management studies may be another reason for the manager's low priority for involving in research collaboration with academics. The nature of in-house research within this company was mainly in research and development projects in the food industry with the purpose of improving their existing products or researching on new products in a competitive environment, and consequently, the dominant organisational preference for R&D issues rather than management research.

Case 'B' provides a comparison in terms of the extent of practitioners' belief in the usefulness and impact of academic research for solving their managerial problems. The collaborative practitioner of this case is from an insurance company which has an internal organisational environment that is familiar with networking in financial services, and a strong background and experience of working collaboratively with other companies in the same field. He attaches some limitations to the usefulness of academics' research:

"...I do not think they {academics} are equipped to get involved with the near market research, because they do not understand the market..." (CPB).

As we see, even in case 'B' where the subject and structure of collaboration is close to the main priority of the practitioner's organisation for financial services and networking and which was seen by both sides as a successful collaboration, there is still a prime perception of uncertainty about the capability of academics for getting involved with the individual day-to-day and specific practical issues within organisations.

From the other side, this manager refers to some considerations which may increase the usage of academics' research. His explanation is that academics' involvement in studying longer-term strategic issues could be helpful for achieving the mutual benefit of academics and practitioners if those issues are the common problems of more than one company.

But, as we notice in case 'C', the reaction of practitioners to involvement in working with academics for solving their organisational problems is quite different. The extent of their acceptance of the applicability and usefulness of academic research for solving organisational problems shows a higher level in this case which is from a community-based organisation than in cases 'A' and 'B' from two different sectors of industry. Analysis of data in this case shows a general acceptance of the usefulness of involving in research collaboration with academics.

"...so, we would like to say that university should be a resource for the community. The community pays for the university and there are many situations where communities are dealing with very difficult complex problems and issues and they do not know the extent to which the university is or is not a resource for them. So, something which helps to increase the access, I think could be very important." (MCPC).

This different prime perception of practitioners about the necessity of collaboration between academics and practitioners in community-based organisations for solving the community's problems may raise a question about the relationship between the type of collaborating organisation and the nature of its main activities, and the extent of practitioners' belief in academics' help for solving the organisational problems.

"...I think in terms of collaboration in 'C' university we had a real need and I think what had made us very confident about working with them was that they had helped us to articulate what that need was." (JCPC).

The broader limitations of research collaboration between management academics and managers as one of the non-academic users of their research compared to the natural sciences research is another point which happened to be a prime perception of academics and practitioners in the case studies. In other words, data gathered for this study reveals a prime perception about the reasons of these limitations of research collaboration in social sciences. The lack of tangibility of outcomes of research, the problem of measurement of the output of management research compared to the physical sciences, and also the lack of knowledge or necessary skills and expertise on the practitioners' side for involving themselves in academic research, are some examples:

> "...I guess you would find this {research collaboration} more in the scientific and technical areas...it doesn't really work in the social sciences, so I think that depth of collaboration doesn't exist. I have not got my experience of that..." (PRA).

The limitation of measurement of outputs of research collaboration in management issues compared to the physical sciences holds different aspects of argument. The nature of outputs which are mostly qualitative is explained by the principal researcher of case 'A':

> "...I think if you are looking at the science and technology side, what you can see emerging from it is a hard product...if you are talking about the management side then you are not talking about hard products, you are talking about soft products, qualitative issues, and for qualitative issues managers will feel confident to read what is happening in the professional journals; the trade journals." (PRA).

As we see in case 'B', this limitation is also declared by the practitioner when he is asked to describe the success of their collaboration and the criteria which he uses for this measurement.

> "Oh, that is very difficult, because I do not think that I would show a cost-benefit for it. I wish I could...I can imagine that there should be some way to describe it, but it can be very difficult to use this stuff in a day-to-day context, that is very difficult." (CPB).

Principal researcher of case 'C' points out the difficulty of measurement of success in collaborative research in different words:

> "...I would judge the validity of any results I get, partly on the basis of the organisation I was involved in, thinking that I was useful in some way, but we cannot really measure these things..." (PRC).

Even though case 'C' is the most 'real-world' case of research collaboration in our study, we still see the limitations on involving non-academic users of research in all research projects from the academic's point of view:

> "...there is a scientific method plus a scientific terminology and some of what I have done actually has been in that style...but we are not always expecting that the client would be a part of research."(PRC).

The above point may raise a question of the relationship between the subject and methodology of research and the applicability of involving non-academic users in all stages of a research project. A research project has different stages which need to be completed, from preliminary study to writing the research proposal, data gathering and fieldwork, data analysis, and finally writing up the research report. The questions are: how can practitioners be involved in all of these stages on an equal basis to academics' involvement? What about technical aspects of doing research? Is the research methodology a determinant of the degree of collaboration? Do collaborative research paradigms and other scientific research methods work in the same ways during the collaboration process? For example, when one researcher decides on doing a survey by mail questionnaire, then it seems that the possibility of depth involvement from the practitioners' side would be lower than in research projects, where action research is the chosen methodology for doing the investigation. In other words, when the only purpose of contacting other organisations is getting permission for sending a questionnaire or conducting interviews, the practitioners do not feel that they are involved in the process of research and the academics' focus is mainly on the process of scientific research and not on the immediate application of their findings. These differences were revealed across our case studies. For example, data analysis showed that the attachment of practitioners to the process of research within case 'C' which utilises a participatory research method was more than cases 'B' and 'A'.

The limitations of practitioners' involvement in technical aspects of research is perhaps an area which has not been focused on in the existing literature. The competency of collaborative practitioners in terms of their knowledge, skill and experience on the subject of research seems to be a precondition for the effectiveness and the extent of their involvement in the process of research.

> "If you are talking about partnership, then the industrial side needs to be involved in setting it up. I think in the kind of project that we were involved in, you may not know enough about the area because there is not enough knowledge about what is happening, what kind of development is taking

place and why? So, the first thing you have got to do is to find out what is actually happening there..." (PRA).

As was discussed earlier in chapter 5, the practitioner in this case study had not entered into collaboration from the first stage of the research project.

There appears to be a perception of practitioners as having limitations for involvement in all academic research. It seems to me that the perception of these academics is like drawing a map in which some locations are more suitable for the joint journey of research collaboration between academics and non-academics than others. In other words, involving non-academic users in the process of management research is not an unconditional decision from academics' point of view.

The experience of research collaboration

The three phases of research collaboration

The findings of this study show a three-phase involvement in the experience of collaboration between academics and practitioners which we can picture as follows:

I The phase of ambiguity about the nature of collaboration;

II The phase of exploration about each other's priorities and main interests;

III The phase of securing a change in perception of both sides and their expectation of research collaboration.

These phases will be discussed in more detail through comparing the experience of collaborators within the three cases of this study.

Learning: from ambiguity toward the change

A cross-case analysis in this study illustrates several examples of a *learning process* within the framework of the three phases of experiencing research collaboration The idea of a learning process is the most promising theme which emerged during this study.

As discussed earlier, in case 'A' which does not show a close involvement from the practitioner's side, the three phases of the process of collaboration are not very obvious and distinct. What is reported by practitioner or academic in this case is

mainly general information about 'working together', not necessarily about their relationship in the process of research. Therefore we do not receive any information about the conflict between academic and practitioner in this case. It is worth noting that this does not necessarily mean that case 'A' has been more successful than the other two cases. The findings of this study show that opportunity for learning and getting benefit from collaboration is higher when the relationship between collaborators is closer. The process of learning can be explored through comparing the perception of practitioners of our case studies in the phase of ambiguity and securing a change in both their perception of collaboration with academics and their expectation of this involvement.

> "...I mean I did not know what to expect. Now, I think we expect quite a good standard of research on board of the strategic topics and the opportunity to discuss those findings with other people within the industry. " (CPB).

Another example of this developing process of learning can be seen in case 'C'. The distinctive characteristic of this case was that the involvement of practitioners had started from the first stage of preparing the research proposal.

> "When we had our first contact with the university, we did not have in mind that we might do a joint project of work with them, it was not there at all...our working process with the university has been gradually a developing one, possibly over a period of a year before we came to an agreement about the project...so, I would say my perception of what the purpose of the collaboration is from our point of view has shifted because of learning about the issue that it has included a challenge to our colleagues to say that we want an application and that is why we are involved and we do keep moving towards that point, ..." (MCPC).

In both cases 'B' and 'C', we can recognise what was referred to earlier as a learning process. In case 'A' we can notice the phase of ambiguity as well, but the difference is that there does not appear to be any sign of change and moving forward from the first phase.

> "I am expecting a feed back, but you see, I do not have any formal understanding as to what 'PR' is going to give us. I mean in a sense we have been helpful to him and we hopefully would learn something." (CPA).

It is an interesting point that this practitioner is just hoping to learn something from this relationship and he does not have a clear prospect of the texture of this learning. The analysis of data through this case shows a perception that from this practitioner's point of view these are academics who learn more in this relationship.

> "They {academics} are learning something from you. They are not focused just on that discussion because the academic is thinking of what this means for the

> publication and the university involvement which is not of direct interest to business, but nonetheless is relevant to the way things are done. So, what we then tend to get out of the discussions with the academics is part of what they are doing." (CPA).

So, what happens in the process of 'working together' in cases 'B' and 'C' which make an opportunity for practitioners' learning? Although as was discussed earlier, our case studies are different in terms of the nature of collaborator organisations, the nature of the subject of research, the professional background of practitioners and academics, and the methodology of research, one distinctive characteristic can be observed in the process of cases 'B' and 'C', which was not detected in case 'A'. This characteristic is the experience of the phase of exploration about each other's priorities and main interests. Close relationship and two-way communication between academics and practitioners of these cases provided an opportunity of learning. It is worth noting that this 'pre-outcome' (my term) of collaboration does not happen automatically and not necessarily in a smooth way. That is a point which has to be taken into account for a better understanding of the notable characteristic of collaboration between academics and practitioners. When practitioners in this study recollect their experience of working with academics, we can trace this movement.

> "...I think we had a process in the collaboration where we had to assert that, because there was definitely a point where I wrote a piece of paper which basically said: well, if you are getting what you want out of it, you have got your money from the ESRC, your PhD student from the project and you seem to be very busy, we cannot see if we are going to have anything to show for this at the end of the time that we could have to one of our members or to anybody else. So, we did confirm that with them and that was the beginning of a piece of group working and we put the focus on how can this be turned to mean something to people." (MCPC).

The above statement reports a crucial point in the process of collaboration which could prevent the progress of this process, but the possibility of an open dialogue between collaborators not only overcomes this conflict, but also provides an opportunity for both sides to explore each others' expectations from the collaboration.

Analysis of data in case 'B' reveals another example of conflict occurring between practitioners and academics in practising collaboration in which we can recognise a phase of exploring each others' expectations and this leads to learning about collaboration.

> "I said that it is very nice to have all this high flying material for publication and good luck to you academics and off you go and do it, but please do not trouble us for it, because we just cannot work with that volume of wordage...now when they do a report they produce an executive summary which I told them not to exceed more than four pages, and if they do, no-one in this organisation would read it..." (CPB).

This transformation from conflict to building up trust and effective working relationship can be identified in the following statement by the same practitioner:

> "...where we put forward a need, they come up with a potential way of researching that need and then the vital bit is that we also are in favour of talking about it and that is quite difficult to manage, but there are some real management issues which I think do exist. Professor 'PRB' says that the value to the university is that they now are learning much better ways of how to deal with practitioners . So, that is very good, but I think it works the other way as well that we can learn quite a lot from the academics."(CPB).

Summing up the above discussion, learning through collaboration seems a developing process which can only happen in a situation where collaborators have an opportunity of experiencing close relationship, open communication and transparent dialogue about the origins of the conflicts between them.

Motivations and expectations

The detailed analysis of case studies includes some interesting messages of the experience of research collaboration by collaborator practitioners under the questions related to their motivations and expectations of 'working together'.

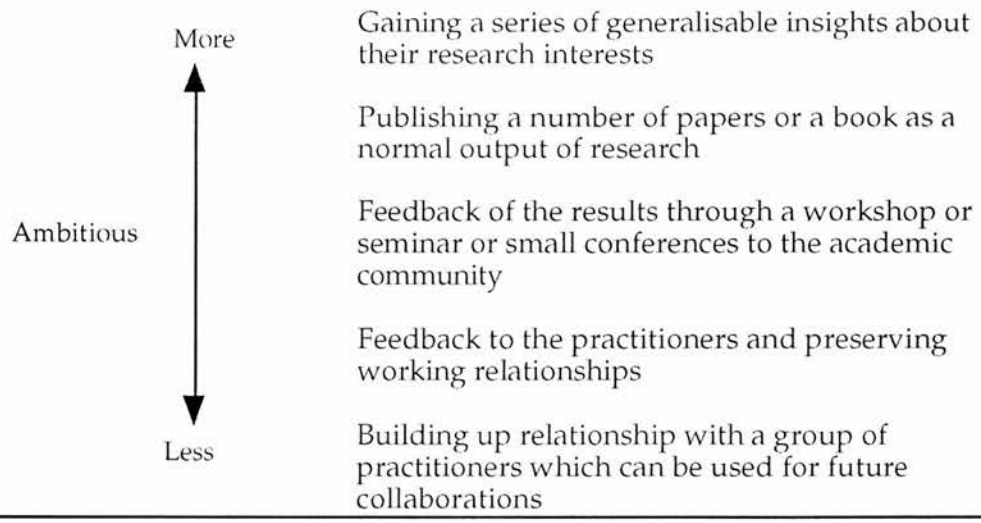
While many of the issues considered appear to be common across case studies, particularly questions to do with motivations and expectations of management academics for involving non-academic users of their research in the process of collaboration, comparison of case studies does suggest some differences in the motivations and expectations of practitioners of these cases for entering into research collaboration with management academics. The main factors for academics' motivations are summarised in Table 8.1.

Table 8.1 Academics ' motivations for participating in research collaboration

• Learning more about their subject of research to gain a more generalised insight into it;
• Getting better insights about the practical world and application of theory in the real world;
• Access to a rich resource of different cases which can be used for teaching, especially in management disciplines;
• Learning about different expectations of practitioners of entering into research collaboration.

Although our case studies are concluded with an almost common component of academics' expectations of the output of research collaboration, these may be ranked on a scale of more or less ambitious expectations to give a better understanding of the importance of each outcome from academics' point of view (Figure 8.2).

Figure 8.2 Academics' expectations of the output of research collaboration



As can be seen from figure 8.2, the more ambitious expectations of academics for entering into research collaboration are mainly the same expectations which are common for doing any form of standard academic research. The only additional components are: building up a relationship with a group of practitioners and preserving it for future opportunities of research collaboration.

The motivations and expectations of practitioners who were involved in our case studies can be compared in terms of their main reasons for entering into collaboration and the outcomes which they expect to get from it.

According to data analysis across case studies, we can recognise a difference between practitioners' reasons in terms of the intensity of their motives for collaboration with academics. For example, as we discussed earlier in chapter 5, there are some reasons which the practitioner of this case refers to directly, such as getting an opportunity for exchanging information with an academic researcher, learning about what the other companies are doing in the same field, and some other reasons which come out from data analysis like the personal interest of the practitioner in the research subject and previous personal experience of working on the same subject, and familiarity with the university and its academic reputation. These reasons for the practitioner of case 'B', indicate more specific motives, for instance, gaining an opportunity for developing the network with other practitioners in the same industry, the personal interest of the collaborator practitioner in entering into this collaboration with the university, and the gaining of value from the membership of a financial services forum.

The reasons for entering into collaboration with management academics in case 'C' are even clearer than in case 'B'. The timing of research in terms of the importance of its subject for the collaborating organisation, the coincidence of seeking an answer to a relevant question to the subject of research by this organisation and at the same time by academics in the university covers the main motivations of practitioners in this case for entering into collaboration from the first stage of research.

What can be concluded through the cross-case analysis is a relationship between motivations and expectations of practitioners. Our earlier discussion about the process of learning within three different cases in this study shows that expectations of collaborator practitioners in cases 'B' and 'C' are higher than in case 'A'. The involved practitioner in the latter case was solely looking for a feedback at the end of the research and nothing more, whereas in the two former cases not only there were higher expectations at the beginning of the research, but they also developed their expectations through the process of learning. The practitioners' stronger motivation for entering into collaboration with academics, and the opportunity of closer relationships and more involvement in the process of research in recent cases can be the main reasons for this difference.

In a general comparison, we can suggest a relationship between motivations of practitioners and the level of their expectations in these three cases. The higher the motivation for entering into research collaboration, the higher the level of expectations (Table 8.3).

Table 8.3 The relationship between motivations of collaborator practitioners and the level of their expectations from research collaboration

	Expectation		
Motivation	**High**	**Medium**	**Low**
Higher	case 'C'		
Medium		case 'B'	
Low			case 'A

Conclusion

The main themes addressed by research questions in these case studies aimed to obtain a better understanding of the actual process of research collaboration between management academics and practitioners with respect to their experience of 'working together'.

Each of the themes discussed above generates a number of concluding comments. Although all three cases studied in this research were initiated by the academic side of the relationship, there is a diversity of interaction between academics and practitioners through collaboration. Considering the continuum of collaboration which was suggested in chapter four, the case studies can generally be compared through this continuum (Figure 8.3.).

Figure 8.3 Comparison of three case studies along the suggested continuum of research collaboration between academics and practitioners

Minimum_____Maximum

Case 'A' case 'B' Case 'C'

Although it is concluded that the search for specific prescriptions for effective collaboration between academics and practitioners may be unrewarding given the

differing nature and scope of collaborations and the environment in which they are taking place, a better understanding of these diversities in practice can provide a basis for increasing our knowledge of different aspects of this relationship.

Overall, despite the small number of cases which ultimately were available for inclusion in the research, the issues which came out from our analysis through this chapter can be developed in future studies of research collaboration between academics and practitioners. Regarding the diversity of case studies, the similarities concluded from the cross-case analysis in the current study indicate some key notions, such as the existence of a prime perception of collaboration on both sides which are input into the process of 'working together'. This notion was discussed within the framework suggested in the beginning of this chapter. The cross-case analysis also identified a three-phase pattern of practising research collaboration between academics and practitioners, and the importance of *learning* throughout this process. Limitations of research collaboration on both sides are also evident from our case studies. In addition, the analysis of data suggests a relationship between motivations and expectations of practitioners across the case studies.

CHAPTER 9
CONCLUDING DISCUSSION

What lessons can be learned from this research?

This final chapter involves not only a more comprehensive discussion of the main threads of discussion in the previous chapters, but also includes some reflections on the methodological lessons to be drawn from the research. This study aimed to explore the perception of the academics and practitioners about the effective processes of working together in the context of research collaboration. This aim was based on the assumption that developing a better understanding could be important and helpful for both sides, and also for policy-makers who are seeking to encourage and foster research collaboration.

What was discussed in the previous chapters can be categorised under two main headings: First, general findings from different sources (literature review, supplementary interviews with academics, existing documents about government initiatives for encouraging research collaboration between industry and university in different areas of study), and second, specific findings based on the data analysis from the cases of research collaboration which were studied. These data illuminate both academic researchers' and practitioners' point of view.

The framework of this chapter has been chosen in terms of the questions rather than answers in order to develop a more reflective discussion on the findings of this research. These questions include:

I The main and specific questions of this research which were the basis for conducting the interviews.

II The questions which were generated through the stage of data analysis and which go beyond the original research questions.

A total of 26 interviews were carried out in this study through five different stages with different purposes (chapter 3). The study involved eight research projects covering the field of management and business studies, with their principal researchers from eight university departments around Britain. Three of these cases were studied by interviewing both principal researchers and collaborator practitioners. The five remaining were those research projects in which interviews were conducted only with the principal researchers.[1] The first discussion within this chapter is developed on the methodological lessons which can be learned from the experience of this study.

Methodological reflections

The conduct of this study involved many problems in terms of access to the targeted cases for data collection. This resulted in an unbalanced equation of time and effort which was devoted to this stage of research from one side, and the limited number of ultimate cases of collaborative projects which became available for this study from the other side, and consequently, the extra pressure of working with a small number of case studies for developing the findings and drawing conclusions. Although steps were taken to strengthen and support the data gathered from case studies, such as supplementary interviews, some discussion of the small number of case studies is necessary.

Why was this such a difficult project? As was explained in detail in the setting out of the research methodology, the research design aimed to get access to the ESRC-funded projects in management research which were carried out in collaboration with practitioners at different universities around Britain. Several steps were taken to get access to the suitable cases for study. The problems of these stages are also described in chapter 3. If the ESRC could have provided me with a reliable list of required information within a quicker period of time, and I could have started with a larger number of cases to approach, this study would not have been confronted with so many difficulties during the different phases of research. Although I tried several ways to increase the number of relevant cases, or at least relevant information, I had a limited time of which an unreasonable part had been spent on looking for access to examples of collaborative projects. This problem was caused mainly by the choice of studying collaboration between management academics and

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[1]See chapter 3, research methodology, 'why these cases?'.

practitioners in the policy context of the ESRC. Overestimation of the sufficiency and reliability of the ESRC data of collaborative research projects led to reliance on their list of projects which in any case, I received only after seven months.

The diversity of the definition of collaboration between academics and practitioners, and the nature of the ESRC-funded research projects within the grant scheme are the other reasons why this proved to be a difficult project. While these problems were becoming apparent, I tried to increase the number of supplementary interviews with management academics. I also approached the ROPA scheme (Realising Our Potential Award) of the ESRC in the hope of interviewing the academics who had won this award, because the members of this group were the university researchers in the social sciences who had been funded directly by industry in their previous research. In other words, collaboration was the main condition for considering their applications by the ESRC. Alongside transcribing the interview tapes, I continued to follow up information from the ESRC about this group. Finally I was provided with a list of the award holders of this scheme some months later which was sent to me by the secretary to the Research Grants Board. I even wrote to this group of academics, but unfortunately, because of the summer holidays, I had a few responses to my letters which attested that most of them were not available for interview at that time. Moreover, their recent award was not necessarily for a collaborative project and it meant that I might not have gained access to the cases where I could be able to interview both collaborator academics and practitioners (interestingly, two of these academics were the researchers whom I had interviewed before during my study). This was the stage where I still had to continue transcribing more than half of the interview tapes, thinking of data analysis strategy and applying it to the data. So, the cases which were ultimately available for inclusion in this study were the only possible ones, given my chosen criteria of matching collaborating academics and practitioners in management research projects which had been awarded by the ESRC.

These limitations not only led to the decisions on managing the data and on the procedure of data analysis, they also influenced the design for presenting the data throughout the thesis. This design provides a comprehensive and integrated picture of all of the data gathered through this study: a preliminary discussion based on 20 supplementary interviews which is developed within the context of wider literature, three case studies of the process of research collaboration based on both of the principal researcher's and main collaborating practitioner(s)' perspective in each case, within three different chapters, and finally a separate chapter of cross-case

analysis in terms of research themes and comparison between these cases, and a concluding discussion.

Another idea considered for increasing the research data for this study was conducting follow-up research to trace how the process of collaboration in each case study was developed over time. This was employed in one of the case studies. The follow-up was one and a half years after the first interview. Although it was helpful in gaining a deeper insight into the different aspects of collaboration between academics and practitioners in this case by checking some parts of information which had come out from analysis of the first interview, the long interval between the first and second interviews showed a problem of recollecting the detail of the first interview by practitioners. It would have been more helpful if from the beginning of research the possibility of conducting follow-up interview had been considered within the research design. The aim of this arrangement and its possibility had to be discussed with interviewees in the first interview. In my experience during this study, the follow-up interview can be more effective if interviewees are provided with a copy of the transcription of the first interview and a brief reflection on the data.

As described earlier, this study started by approaching 31 projects for conducting 8 to 10 case studies among these projects. The review of chapter 3 explains the process of decreasing the number of targeted research projects to the three case studies, and the reasons why the framework of the ESRC's list of collaborative projects in management research did not permit any increase in the number of case studies. So, a question may be raised: 'could this research have been carried out in a more problem-free way in terms of gaining access to academics' and practitioners' perceptions and their experience of entering into research collaboration with each other?'. One of the other designs which could have been used was choosing different universities and different branches of industry and then interviewing the academics and practitioners who had experience of collaboration, and not necessarily in a matching project, though this design could not provide the necessary information for studying the process of research collaboration between academics and practitioners. Another option might be sending a letter to different management departments in several universities and asking them about their collaborative research projects with other organisations outside the university, without regarding the funding body. For the purpose of saving time and money for access to different persons in different locations around the country, it could be even easier if just two or three business studies departments or management schools of local universities in one or two cities

close to the researchers' place of study were chosen for access to examples of collaborative research project with practitioners in other organisations, preferably in local areas rather than in other cities. But none of these designs, perhaps less time consuming in practice, could illuminate some of the aspects which came out from this study within the context of ESRC's research policy as one of the main funding bodies for the social sciences research in Britain, particularly considering the new policy of involving non-academic users in social science research by the ESRC.

Another methodological aspect of this study from the researcher's point of view was confronting two different populations in the interview - academics and practitioners. This difference was realised during the early stages of fieldwork, and repeated throughout the other cases of interview. So, describing the experience may be helpful for increasing the reliability of this research in future studies. The experience of this research showed that academics were more interested in responding to the general aspects of questions and the nature of theoretical discussion was stronger in their responses, but practitioners were more focused on practical aspects which were relevant to their organisations' activities and their responses were affected by this focus. In some instances, it seemed to me that academics indirectly intervened in the procedure of interview; sometimes they ignored the focus of questions about the research project and their responses were based on their overall experiences of research or collaborating with practitioners. The interviews with practitioners were more controllable in terms of specific questions of research. Therefore, although I conducted the interview with the principal researcher prior to interview with the practitioner(s), each case-study's report begins with the data from the interview with practitioner/s which was more detailed and revealing in terms of the process of research collaboration. The data from the academics' interviews, of course, was very helpful for the purpose of theoretical discussions about the entire subject of research which seemed to be of interest to them, and it was in a more systematic framework and was also used for checking the interview data from practitioners in specific questions. From the other side, practitioners were not comfortable with direct questions about definitions or giving reasons for the insufficient examples of research collaboration between academics and practitioners for solving management problems. So, I tried to use the result of my experience everywhere it suited during this study. For example, I did not bother practitioners with direct questions about the definitions which confused them and made them feel a gap between themselves and the researcher, whereas

these types of information could be explored through their answers to other questions.

The researcher's role has been discussed in research method texts from different aspects, especially in qualitative research. Its positive and negative impacts on the outcomes of research have been the subject of several discussions through research design and methodology books. Locke, Spirduso, and Silverman (1993) discuss the positive aspects of the researcher's role and its usefulness for entry to a research site and managing ethical issues which the researcher may confront in her or his studies. Marshall and Rossman (1989) point out that there is a need for researchers who intend to conduct the qualitative studies to plan for the management of their role. They suggest that: "Researchers who conduct qualitative studies will need to propose and develop roles that ease entry, facilitate receptivity of environment and participants" (Marshall and Rossman, 1989, P. . 63). The necessity of the interviewer's awareness of the cultural characteristics of the two different interviewee populations in this study seemed to be important to facilitate the conduct of the interview. Although I was interviewing in this study as a research student, my many years experience of teaching, research and working with practitioners as an academic researcher, and also collaborating with academic researchers as a manager, in addition to my educational background in management appeared to play a positive role for entering into the research sites and facilitating the receptivity of participants. It was also helpful in building trust and relationships in both diverse situations of conducting interviews with academics in different universities, and practitioners within their organisations who co-operated in this study.

Making the literature review a part of methodology was another distinctive aspect of this study. This research demanded a special strategy for literature review - a *literature search*. This search began by mapping the research literature and the shortage of related studies to my research subject caused that *literature search* and literature review to become a continuing and progressive process in this study.[2] It was a parallel effort to all stages of research which not only fed the progress of the exploratory process of this research, but also caused the emergence of new angles to the study - a process of two-way feedback. In other words, as the stage of managing data and analysis went further and I got through the data again and again

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[2]See chapter 2, Mapping and review of the literature.

and in better words, lived and played with the data and revised the analysis, new themes formed in my mind which guided me to some of the potential bodies of literature. Therefore, parts of the ideas which developed theoretically through the concluding discussion had not been realised by the time of writing the chapter of mapping and review of literature. The first design of literature review was an attempt to provide a preliminary map of the related issues as a background to the study. This evolutionary process of searching for relevant concepts to the subject of this study was pursued until the very end of the stage of writing- up.

Another consideration which has to be taken into account is the 'Britishness' of this study. In other words, some parts of the data reveal a cultural dimension which seems distinctive of the British community. The presence of an anti-intellectualism among the business sector which was claimed by academics in this study, and also substantiated by some practitioners' statements, is obviously a point in this respect. The lower average years of general and professional education of managers in the business sector compared to other European countries, Japan or the United States is one of the factors which may make some of the implications of this research particular to Britain. Although there has not been an intention to make a comparative study in the aims of this research, the findings of this study reveal some considerations which make it clear that if this study had been carried out in another country with a different managerial culture, different attitudes of universities towards involving themselves in applied research, a different level of research quality within universities or a different national research policy regarding the degree of intervention into industry research and funding schemes in terms of priority setting procedure, then the results could have been different. For example, the industrial support for university research is higher in some countries than others. Different managerial cultures within industry have a potential impact on the research collaboration between academics and practitioners, particularly in management research. For example, the Japanese management system has been characterised as showing flexibility, team work and high level relationships between managerial and operational factors, and the key role for quality (Abo, 1994). In contrast, US management is identified by an individualistic paradigm and short-term financial outcomes (Calori and De Woot, 1994; Barsoux and Lawrence, 1990). There are even some contrasts between American and British management in this respect. Lawrence (cited in Faulkner and Child, 1995) compares these two management systems and concludes that American management is basically rationally-oriented by using standard procedures and formalisation and strategic

management, whereas British management has been described as less formalised and system driven. A low emphasis on quality, short-term financial emphasis, rather than a strategic one, a low level of education amongst managers in industry, and a low emphasis on MBA compared to the US have been identified as other characteristics of the British management system. The management system of the French and German companies show different characteristics: the emphasis on education and graduate degrees for managers, quality of production, strategic and long-term planning are emphasised by both countries. Therefore, research collaboration and its effectiveness can be shaped by factors internal and external to the university and industry, at both the macro- and micro-level. These factors have to be taken into account for a better understanding of the nature of research collaboration between academics and practitioners in different societies.

The discussion will be developed in the next two sections to examine the different aspects of research collaboration between academics and practitioners in management research. The outline of questions is as follows:

Specific research questions

- What is the definition of research collaboration in management research from the academics' and practitioners' point of view?
- How do academics and practitioners enter research collaboration?
- Why do they enter into research collaboration?
    - What are their motives for this collaboration?
    - What are their expectations of this collaboration?
- What are the factors contributing to success of academics and practitioners collaboration in management research?
- What are the factors which inhibit the effectiveness of academic and practitioner collaboration in management research?

Questions beyond the specific research questions

- How does the process of research collaboration make a base for mutual learning?

- How can communication work as a key element for success?
- What is the distinctive nature of practising collaboration between management academics and practitioners?
- What can we learn from the emerging theories?

Section one

Specific research questions

What is the definition of research collaboration?

Collaboration has different meanings in different contexts and this is the main reason that any framework for discussion about collaboration needs to deal with its definition. Huxham (1996) argues that confusion in interpreting 'collaboration' arises from two directions: a mass of related terminology used to describe inter-organisational structures which are the same as or similar to collaboration, and multiple interpretations of the term 'collaboration' itself. This research started with an intention to find out the definition of research collaboration through the study of different sources. The lack of previous research on the subject of this study caused an additional attempt to discuss the more comprehensive picture behind this definition.

The main themes by which collaboration is defined can be categorised in three different groups:

1. What can be named as the dictionary definition, in other words, the general definition.

2. The definitions accepted by academics in other contexts of collaboration.

3. The definitions which were mentioned through this study by academics and practitioners.

The first and second groups of definitions have been discussed in chapter two, and the third group, in chapters four to seven. But, what can we draw from this categorisation in terms of the common aspects and general themes for defining research collaboration in management research? If we turn to a dictionary for the common themes, we find out that the definition of collaboration is usually associated with phrases such as: working jointly with one or a limited number of others in a project, joint involvement in intellectual activities, and working together for a special purpose.

The second group of definitions have been reviewed from the inter-organisational collaboration literature, collaboration in health and welfare, education and some examples of inter-firm collaboration in the field of R&D and science and technology. The common repeated themes within this group can be summarised as follows:

Collaboration as an interactive process, joint decision making, mutual benefit, acting together of two or more people from different professions, sharing power, exchanging information, finding a solution or delivering a service which neither party can achieve alone. The other themes include: shared purposes, respect, trust, commitment, competencies and confidence which have been mentioned as necessary elements for fulfilling the collaboration between different organisations or people.

The third group of themes which has been drawn from the researcher's interviews with academics and practitioners who were involved in research collaboration on management research consists of : presence of common ideas on the importance of a specific subject for study, ability to identify a question together, having demands on the outcomes of collaboration, working closely with each other, being a part of the management of the research project, reaching a joint explanation of the question, making a contribution to exploring the possibility of answering the research questions, a close relationship, involvement in the process of research, two-way communication for exchanging information and getting feedback, continuing relationship, working together from the first stage of research until the end of study, and working on an equal basis.

Taken all together, the definition of collaboration holds some common themes. Table 9.1 provides an overview of these factors within the three different groups of definitions. It is worth noting that this table sets out key themes of research collaboration which have been drawn from different sources in this study, many of which seem interconnected. So, it can only provide an illustration of the probable main themes which define collaboration.

Table 9. 1 An overview of the main themes of the meaning of collaboration in dictionary, related literature, and the study

Main themes
working jointly with one or a limited number of others in a project
Joint involvement in intellectual activities
Working together for a special purpose/shared purposes
An interactive process
Joint decision making
Acting together of two or more people from different professions
Sharing power
Finding a solution for a problem
Shared norms and structure
Respect
Trust and Confidence
Commitment
Competencies
Exchanging information
* Mutual benefit
* Common ideas on the importance of a specific subject for study
* To identify a question together and to explain it jointly
* Having demands on the outcomes of collaboration
* Working closely with each other on the subject of research (close relationship)
* To be a part of the management of research project
* Involvement in the process of research from the first step
* Two-way communication and feedback
*Reciprocity
*Working on an equal basis

* *These are the most frequent themes which came out from this study.*

The researcher has so far tried to define what research collaboration is supposed to be, mainly by categorising the main elements and themes which have come out from

analysing the data collected from different sources. To bring this to a conclusion, we perhaps can suggest the following definition of research collaboration:

> Research collaboration can be defined as an interactive process of 'working together' between academics and practitioners through identifying a research question together, making a joint explanation of that question and contributing to the exploring of the possibility of answering the research question. Mutual demand for both investigating the problem and the outcome of research, and mutual benefit from doing that, are required to provide a situation in which research collaboration can occur.

Although it cannot be claimed that the above definition of research collaboration is an entirely comprehensive one, it can be of some help as a tool for this study and future studies on the subject in order to identify and choose the collaborative research projects in terms of similar criteria. Regarding this definition, in this study, only case 'B' and case 'C' can come under the title of collaborative research between academics and practitioners. Analysis of both of these cases showed some characteristics which put them in the domain of the above definition - 'working together' from the first stage of research, ' joint working' for identifying the problem and explaining it, close relationship for exchanging information during the progress of the research project for gaining a better insight into the process of research and getting feedback for a better mutual understanding of the process of collaboration- whereas case 'A' did not cover most of the characteristics mentioned in the definition. This case was mostly an example of co-operation of practitioners for providing data for the academic's research and the collaboration between the two parties had been started at the later stages of research.[3] It is worth noting that case 'A' was one of the common examples of relationships between academics and practitioners within the research projects which were funded by the ESRC. This comparison was developed in chapter 8.

This study explored the existence of a mixture of ideas which indicate a continuum in the forms of collaboration between academic researchers and practitioners. This continuum extends from just primary contacts for getting access to the research sites for gathering data at one extreme to 'working together' for a specific set of purposes at the other extreme. The other forms of collaboration which fall between these two extremes include providing facilities for academic researchers by practitioners in order to complete their research questionnaire and carrying on the interviews with manager and workers; giving permission for research observation in the work sites

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[3]See chapter 5, case 'A'.

to provide consultancy work or arranging training workshops by the academic researchers. These are the other kinds of managerial assistance to academic researchers which provide the base for collaboration between them. These partnerships are also helpful to build up and to keep the relationship for future opportunities of research collaboration. Time (long-term or short-term), the nature of research subject, the extent of involvement in the process of research (minor or major) and the nature of relationship between academics and practitioners were the other criteria for explaining the diversity of collaboration through the continuum which emerged from this study.[4] Himmelman (1992) has suggested a hierarchy for working together in inter-organisational collaboration that extends from networking to partnerships. He distinguishes each stage of 'working together' by describing the parameters of each style. For example, networking has been described as the most informal stage requiring only sharing information for mutual benefit, whereas collaboration includes exchanging information, sharing resources, altering activities and enhancing the capacity of another for mutual benefit through achieving a common purpose. Co-ordination and co-operation come between networking and collaboration, and partnership with a contractual obligation to collaboration at the other extreme of the above mentioned hierarchy. Although there is some overlapping between the parameters of each level in this hierarchy, and it also has been discussed in the context of the community inter-organisational collaborative working, it can show the diversity of the styles of 'working together' in different situations. Some of these parameters seem compatible with the measures which were discussed by the researcher for the different levels of research collaboration in practice. For example, sharing information in networking level may be compared with preliminary contacts for getting access to research sites. Demonstrating a willingness to exchange the information and to share resources in the stage of co-ordination in Himmelman's hierarchy can be also related to the practitioners' willingness to exchange information with academic researchers in universities through accepting them in their workplaces for completing a questionnaire or carrying out interviews. These relationships take place in different situations of the discussed continuum of collaboration.[5] When practitioners take part in case studies and workshops which are held by academics, they assist with research or teaching. This may be compatible with the stage of co-operation which needs more

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[4]See chapter 4, section one.

[5]See chapter 4, pp. 83-84.

commitment, including the exchange of information and sharing resources to get mutual benefit and to achieve a common purpose. It is worth noting that resources in research collaboration are not necessarily financial. Time, expertise, information and personnel's participation in the research process are non-financial resources which can be shared. According to the findings of this study, research collaboration between academics and practitioners not only holds a range of different types of relationships which are mostly interrelated, it has a distinctive characteristic of the involvement of two diverse groups with two different types of *knowledge* and expertise which has to be interpreted into an accessible and understandable framework in order to produce a fruitful outcome from working together (chapter 4).

What makes a successful research collaboration?

The findings of this study showed that a successful research collaboration has to meet a combination of conditions in different phases of collaboration. These conditions can be divided into: pre-conditions for initiating collaboration, throughput-conditions for working of collaboration, and post-collaboration conditions for dissemination of findings and delivering the outcome of research collaboration into practice.

As discussed in chapter two, there has been a great interest through the related literature in collaboration for exploring the factors of success and failure of 'working together'. There has always been a question about the difficulty of achieving effective and successful collaboration. Why are some experiences of research collaboration more successful than others? What are the conditions for achieving a successful research collaboration and what are its characteristics?

The existence of mutual benefits for the parties involved in collaboration was stated by academics and practitioners in this study as an important factor of successful collaboration. But what is the nature of these benefits? One consideration is the value of these benefits for all collaborators. As mentioned earlier through this thesis, the currency of these benefits may differ for each of the collaborators in the process of research. Although the benefit of learning through research collaboration was a common benefit attested by the non-academic collaborators in all the three case studies, there were some differences in the nature of the potential benefits, which were discussed through cross-case analysis in chapter 8. For example, the findings across these three cases show that the earlier academics and practitioners start working together on a specific research project, the more explicitly are the mutual

benefits determined, and vice versa. As discussed earlier in chapters 4 and 8, the methodology of research can be another factor that changes the scope of the involvement of practitioners and academics in the process of research collaboration. Putting it another way, if the chosen methodology in a research project is one of the standard models[6] in which the researcher carries out the study by using the information about research subjects and not involving them in research, then, there is less opportunity for the practitioners who only provide information for researchers, to realise the benefits of this relationship. This situation would be completely different when the methodology chosen by the researcher is, for example, participatory action research which requires the involvement of practitioners in different stages of research.

Judging success of collaboration is not a straightforward task. Gray (1996) discusses the variations in the criteria for success in inter-organisational collaboration and its relation to the design that collaboration takes. She summarises the relevant success criteria for each collaborative design, classifying them into four types including: appreciative planning, dialogues, collective strategies and negotiated settlements. Gray's framework is mainly based on two dimensions: motivating factors and expected outcomes. According to this design, the factors for judging the success will be different within each design of collaboration, for example, appreciative planning which involves information exchange in the interest of advancing a shared vision, and exploring solutions to a multi-party conflict can be judged by the basic outcomes related to information exchange. These outcomes include the stakeholders' understanding of each other's intentions and obtaining a broader knowledge of the problem than their perceptions before entering into this type of collaboration.

Although the nature and context of collaboration in this study differs from Gray's, her general idea about the relation between the design of collaboration and the

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[6]There are various ways of defining and categorising types of Applied Social Research (ASR) (Whyte, 1991, pp. 271-272). Whyte discusses that his definition is solely based on the relations of the researcher to the subjects of research, and suggests three types of research: (1) the professional expert model, in which the researcher makes a study and recommends a course of action to decision makers in the organisation studied; (2) action research which is controlled by researcher, in which the researcher aims to be a principal change agent as well as controlling the research process; and (3) Participatory Action Research (PAR), in which the researcher seeks to involve some members of the organisation studied as active participants in all stages of research/action process.

criteria for judging success may be developed for the collaboration between academics and practitioners in the context of research. For example, when the motivating factor for entering into research collaboration is advancing a shared vision and the expected outcome is only exchange of information, it can fall in the appreciative planning category. Basic outcomes related to this type of collaboration such as exchange of information about visions and understanding, understanding of others' visions and expectations, fuller comprehension of problem by stakeholders and agreement on problem definition can be applied as important measures for judging success. The findings of this study support the relationship between the design for collaboration and the different criteria which apply to the judgement of the success of collaboration.

Two more points were identified through data analysis (chapter 8). First is the relationship between the nature and extent of collaborators' motivations and expectations for judging the success of research. This applies particularly to the practitioners' side which indicates more diversity in this respect. The second notion is the importance of considering the different criteria for judging the success of research collaboration, by the different bodies involved in a research project-academic researchers, practitioners and funding bodies like the ESRC (chapter 4). Applying all the concepts to the debate around the factors of successful collaboration amounts to a challenge because of the different criteria for measuring the success within different contexts of collaboration. For example, as we discussed earlier in chapter 2, the most important factors which had been reported by Little and Leverick's study[7] (1995) as contributors to the success of collaboration were not referred to, at least directly, in our study. For instance, the importance of choice of partner, setting up a task force, or establishing the ground rules were not mentioned by any of practitioners or academics in this study as factors for the success of research collaboration. But, the findings can suggest two ways of looking at these differences. First, by assuming some possible reasons for this contrast, such as the different objectives of collaboration in collaborative product development, and research collaboration in the studied cases, and also the different combination of collaborators or diverse resources which were involved in the process of collaboration. The second way involves paying more attention to the indirect references by the practitioners and academics to the similar themes through their explanations of the process of collaboration. Putting it in other words, although

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[7]See chapter 2, 'successful collaboration', pp. 37-42.

these factors were not mentioned in our study as contributors to successful research collaboration, they were apparent within the practitioners' statements as potential factors which need to be considered for future studies on the subject.

The competencies of both academics and practitioners were referred to by both academics and practitioners in this study (chapters 4-7). For example, in case 'C' where the collaborator practitioner (CPC) refers to the knowledge and expertise of the principal researcher (PRC) on the subject of research, it can be compared to the success factors of 'choice of partner', and mutual benefit for both sides from collaboration which is discussed as 'ensuring equality' in Little and Leverick's study (1995). We can also refer to case 'A' in which collaborator practitioner (CPA) explained two main reasons for collaborating with the principal researcher in this case. One reason was his familiarity with the university in which 'PRA' was an academic member and also head of the management department. In addition, he mentioned that he had studied in this university as well. Another explanation was that the university is a well-known one with a reputation in research. In case 'B', again the reputation of the university was mentioned by the practitioner as a reason for entering into collaboration. From the academics' side, the interest of practitioners in the subject of research and their practical experience of it were counted as the main factors for choosing the collaborator practitioner (chapters 4-7). The opportunity for gaining more data for developing knowledge on the subject of research through a beneficial relationship was also mentioned as another criterion for choosing collaborative organisations and collaborator practitioners. Now, this is the question which remains unanswered: 'Is there any relationship, for example, between the factor of *choice of partner* and the outcomes of research collaboration between management academics and practitioners? 'If yes, what are the criteria for this choice from academics' and practitioners' point of view? How compatible are these criteria? How does this work in practice? These questions and other related considerations need more investigation through future research on the subject of this study.

Some of the critical factors which contribute to the success of collaboration have been discussed through the literature review[8]. Effective communication, good inter-personal relationship, mutual trust, long- term perseverance, and the importance of devising appropriate procedures for the management of the process of collaboration

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[8]See chapter 2, pp. 37-42.

have been frequently emphasised in this respect through the literature on different contexts of collaboration.

The analysis of data gathered for this study (chapters 4-8) explored some of the main factors in the success of research collaboration from the academics' and practitioners' point of view. Table 9.2 shows a condensed list of these factors in order of the most repeated ones by both academics and practitioners:

Table 9.2 The main themes which explain the success factors in research collaboration

- Mutual understanding and mutual interest in the subject of research;
- Building up good personal relationships;
- Two-way communication from the first stage of research project and the opportunity for getting feedback on the progress of both research project and the process of collaboration by arranging regular meetings;
- Consideration of the importance of reciprocity in all stages of collaboration;
- Flexibility in presentation of research findings by academics in different stages of research and communicating results in a common language;
- Trust and acknowledging the differences between two worlds of academics and practitioners;
- Developing the collaborative culture for 'working together'.

Regarding data gathered in this study, other factors, in addition to the above elements, were assumed to be involved in increasing the probability of the success of research collaboration. These factors include using the existing relationships with practitioners - considering their experience and competencies in working with academic researchers, and their willingness to enter into collaboration – and developing the academics' skills in negotiating and communicating with practitioners to engage them in research collaboration. The academic reputation of researchers was also hinted at as an effective factor for getting the interest of practitioners for involvement in research collaboration. It is worth noting that the latter factors are mainly effective in the first stage of collaboration as pre-conditions for bringing academics and practitioners together, whereas the major part of the themes in Table 9.2 relates to the success factors through the process of 'working together' and outcome of research collaboration.

What are the barriers to research collaboration between academics and practitioners?

Despite the growing number of different types and varieties of collaboration in different contexts during recent years, there is a common agreement on the existence of unsuccessful collaborations. Generally speaking, the different orientation of participants in a collaborative work has been of great importance among other barriers to collaboration and the main reason for conflict which was discussed in chapters 2 and 4. A two-faceted discussion can be developed here about the barriers to research collaboration: First, raising a question of 'what inhibits the happening of collaboration? In other words, what are the factors which prevent academics and practitioners to enter into collaboration?' And the second point relates to the question of 'what does limit collaboration to work?' The findings of this research showed that several factors create the barriers or limitations of research collaboration between academics and practitioners (chapters 4-8).

The multi-faceted nature of barriers and limitations of research collaboration was discussed in chapter 4. These factors can be arranged within three groups as follows:

1) The factors which mainly influence the pre-stage of research collaboration and the willingness of both sides to 'work together' include: academics' attitude towards their basic academic responsibility as producer of knowledge, their scepticism about the usefulness of engaging non-academic users in the process of research collaboration, practitioners' negative attitude toward the usefulness of academics' help, the lack of practitioners' awareness of what academic research can provide for them, the barrier of scholarly language for exchanging information with practitioners, and the insufficiency of academics' skills for involving non-academic users in the process of research.

2) The factors which can influence the process of collaboration during the time of a research project comprised the lack of mutual understanding and common definition of research problems through a two-way communication and close relationship. The lack of capability of practitioners for absorbing academic research, and the rigidity of academics in working with non-academic users are the other elements inhibiting the success of research collaboration in practice. The insufficiency of presentation and consultancy

skills for academic researchers to communicate the progress of the research projects with practitioners is crucial because entering into research collaboration with academics is a peripheral activity for practitioners alongside their other substantial activities within organisations, whereas research, alongside teaching, is the main activity of academics in universities.

3) The third group of factors affect the post-collaboration stage. These include the intangible nature of the outputs of management research, different criteria of success from academics' and practitioners' perspective - within two different time horizons - and again, the problem of communication and dissemination of the findings of academic research which make for limitations of the outcome of research collaboration and in judging its success. It is worth noting that the performance of each factor or a combination of them in the pre-stage and throughput stage of collaboration may influence the outcomes of research collaboration between academics and practitioners.

Huxham (1996) discusses the reasons which cause collaboration so often to reach a state of inertia.

> "The concept of collaborative inertia is used to describe situations where, due to the complexities of working together, collaboratives struggle to achieve anything." (Huxham and Vangen, 1995, pg .4).

This has been identified as the situation where the expected work output of a core group is slowed down considerably. The differences in aims, language, procedures, culture, perceived power between collaborators, the tension between autonomy and accountability, and the lack of authority structure are other barriers which have been pointed out in inter-organisational collaboration alongside the differences in perceptions, and expectations of involved parties (Cummings and Hustler, 1986; Holley, 1977; Threadgold, 1985; Huxham, 1996)[9]. The communication difficulties which might be a consequence of the above differences seemed to be a common factor for different collaborative situations in our case studies (chapter 5-7). Dearing (1993) in his study of university-industry-government relations in technology transfer, discusses the notion of difference reduction. He points out the importance of overcoming these differences which he has categorised into perceptual, relational, situational, organisational, social and/or cultural differences.

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[9]The main parts of these studies have been discussed in chapter 2.

Difference reduction has been suggested by Dearing as a solution for an effective technology transfer through a more effective communication and collaboration. Although the notion of difference reduction might be fruitful for overcoming the main barriers reported in this study in order to achieve a successful collaboration, it requires a fuller indication of its applicability in practice.

The findings of this research suggest the notion of barrier-reduction in the case of research collaboration between academics and practitioners, instead of difference-reduction. In other words, what is needed is to investigate practical mechanisms to overcome the different barriers for collaboration rather than to imagine that these differences can be reduced easily in a short-term period. In some aspects, such as culture, values, or interests of two diverse communities of academics and practitioners, the existing differences are rooted in the nature of their communities and there seems nothing wrong with either of them. What might be changed is the awareness of these differences. This concern can provide a situation in which the learning process would happen more effectively.

The findings of this research show the interaction between general barriers to collaboration which are generated by the distinctive nature of research activity, and specific obstacles because of the nature of management issues in organisations and managers' short-term perspective for finding out the immediate practical answers to their organisations' problems. The cross-case analysis (chapter 8) shows the differences between the three cases in this regard. As discussed earlier, there seems to be a relationship between the type of each organisation's activities and the common barriers to collaboration with academics. For instance in cases 'A' and 'B' which were from industry, the specific barriers to research collaboration were different from what we concluded in case 'C' which was a community-based organisation. Therefore, difference-reduction does not prove to be an easy solution in practice. The importance of different cultures between academics and practitioners, different perceptions of research collaboration, different motives for entering into collaboration and different expectations of collaboration were the core issues reported during the interviews with academics and practitioners in this study (chapters 4-8). What the findings of this research illuminate is *the crucial role of time in increasing the shared understanding of the differences* between involved parties through a process of close and frequent relationships and *feedback on the process of collaboration*. Open communication for discussing the bottleneck (my term) in the process of collaboration can be helpful for increasing the probability of overcoming the barriers of collaboration (chapters 4 and 8). So, it might be asked that what are

the pointers which can reflect the emergence of barriers between the involved parties during collaboration? And what are the mechanisms which can interpret these differences directly or indirectly? For example, it is unlikely that the differences in culture, in motivation, and in expectations of academics and practitioners could be reduced in a short-term situation of collaboration. From the researcher's point of view, we can instead, find the joint points of mutual interest on the subject of collaboration and develop mutual understanding of both parties about the main differences through the learning process based on open communication and two-way feedback. According to this study, as the possibility of communication and feedback were higher, the opportunity for learning increased. Cases 'B' and 'C' illustrated more evident examples of learning process than case 'A' in which the involvement of the practitioner in the different stages of the research project was less. (chapter 8).

The findings of data collected through the supplementary interviews in this study have been discussed within two sections of chapter four. The focus of discussion has mainly been on the nature of research collaboration and management research. The reasons underlying managers' preference for consultancy over academic research were also discussed. Chapter four concluded by addressing some aspects of differences between the two worlds of academics and practitioners. Specific difficulty in research collaboration in management research compared to the natural sciences (e.g. collaboration in technology transfer and R&D) was realised as another barrier within this context of collaboration. The intangible nature of the outcomes of management research was claimed by almost all academics interviewed as one of the reasons for managers' preference for consultancy. As discussed before, we summed up with two different attitudes of academics towards consultancy - positive and negative. The different purposes and expectations of industry and university can be one of the other reasons for managers to prefer consultancy services over research collaboration with academics. The nature of managers' tasks such as decision making under time pressure and their shorter time horizons for finding a solution for a particular problem compared to researchers', are seen as the main differences between management researchers and managers - the non academic users of their research.

Despite a common agreement on the preference of consultancy services over academic research among managers of collaborating organisations, this preference could be modified in different settings and situations. For example, among the three different organisations of the case studies, we can identify a diversity of

explanations and different degrees of emphasis on this preference. The practitioners in case 'C', who are from a community-based organisation with a social responsibility and not from a profit-oriented enterprise, do not express any direct preference for consultancy over research collaboration with academics. Even when they mention the bottlenecks of the process of working together with academics, they do not seem to be looking for a substitute like consultants (chapter 7), but sometimes they demand more practical outcomes, which as discussed before is a common difference between academics' and practitioners' expectations of research collaboration. These propositions require more research to find out if there is any relationship between the type of the activity of collaborating organisations, and the sector which they belong to - public or private - on the one hand, and the collaborative practitioners' previous experience from working with academics, and their preference for using the consultants' services over entering into research collaboration on the other. In other words, how do practitioners make a choice of using consultancy services or academic research for finding out the answers to their questions?

What are the academics' and practitioners' expectations of research collaboration?

The findings of this study showed that expectation of research collaboration differs between academics and practitioners. Generally speaking, academics' expectations are mainly 'knowledge-based', whereas the practitioners' expectations are 'practice-based'. Furthermore, it appeared that there were some factors which affected their expectations. The type of collaboration in terms of closeness in relationship, their motives for involvement in collaboration, and their previous experience of collaboration are some examples. In other words, if the two involved parties in collaboration have a close relationship during the process of working together, then it seems more likely that they would be able to give a clear picture of their expectations. Alternatively, when the relationship is formal and distant, it would be difficult to picture a comprehensive perspective of expectations, particularly from practitioners' side (chapters 5-8).

According to the findings, as discussed earlier, the expectations of academics of research collaboration are more homogeneous than these of practitioners. From the other side, in some circumstances, the practitioners' expectations of collaboration with management academics involve other benefits rather than research, for example, asking for training courses, or requesting informal advice on issues other

than the subject of collaboration. How could it be helpful if academics responded positively to these expectations? Could it be useful for building up a better relationship for future possibilities of 'working together'? The academics who were interviewed in this study and had experienced diverse types of collaboration with practitioners in different ranges of activities confirmed that offering these kinds of services through informal relationships could provide an opportunity for future collaboration. Although most of these services may not seem to be related to research, it could be a first step to realising a mutual interest on a research subject for entering into collaboration.

The previous experience of practitioners and academics of 'working together' on a research project, even in a standard frame of academic research can affect the expectations of both sides of collaboration. In addition, it seems that the expectations can be changed during the time of collaboration, particularly from the practitioners' point of view (chapters 5-8). This notion will be discussed in the next section as a learning outcome of the process of research collaboration.

Section two

Questions beyond the specific research questions

This study not only examined the specific questions which the researcher had aimed to address in the beginning, but the insights that were achieved during the journey of this research raised other issues beyond the main questions. The recognition of these issues in future research on the subject can contribute to a better understanding of effective research collaboration between academics and practitioners, both in theory and practice.

How does the process of research collaboration make a base for mutual learning?

Learning was one of the themes which was addressed repeatedly by both academics and practitioners who were interviewed in this study, directly or indirectly (chapters 4-8). In addition, this study showed that learning is a two-way interaction. While collaboration is in progress, practitioners learn from academics and vice versa. The nature of learning may be different in terms of its focus. Sometimes it is about the different purposes, different interests and diverse motives of the other side of collaboration, and other times it includes a better insight into the subject of research, or gaining a special skill of providing the particular products or services. We can conclude from case studies and other sources of information in this study (chapters 4-8) that learning may be classified as *practice-oriented* or *knowledge-oriented* outcomes. In other words, learning from the process of collaboration with each other, or learning about the subject of research collaboration. Another classification can be made in terms of the length of time - short-term versus long-term outcomes. Learning from the process of collaboration can hold both immediate and long-term outcomes. This is an aspect which needs further research in future, particularly the long-term outcomes of learning. How can these outcomes of learning be applied in future opportunities of research collaboration between academics and non-academic users of their research? What types of learning are more sustainable for utilising in future opportunities of collaboration?

According to the findings, one more consideration is that learning through collaboration cannot be achieved in the absence of a good and close relationship. The feeling of 'ownership' of both the way the groups work and the results or

products of its work has been identified as an important factor for achieving the success of collaboration in inter-organisational collaboration (Mattessich and Monsey, 1992). The developing nature of learning through different phases of research collaboration was discussed in a process of moving from 'ambiguity' towards the 'change'. This concept was suggested through cross-case analysis in this study (chapter 8).

How the communication can work as a key element for success of collaboration?

The importance of *relationship-building* and effective communication for the success of collaboration has been a core discussion in the literature of collaboration in different contexts. The main issues which were examined in this study can be put into a number of categories. First, is the difficulty of communication between academic researchers and practitioners in different stages of 'working together'. A second category concerns the importance of communication as a necessary collaborative skill for those involved members in research collaboration. The third aspect is the diversity of initiatives which can be used in order to facilitate communication between collaborators. The findings of this study showed the practice of diverse mechanisms of communication by academics in working collaboratively with practitioners, ranging from informal and accidental meetings to formal and structured interactive group meetings (chapters 4-8).

According to this study *open* and *accessible* communication is a key element for a better mutual understanding on the purposes of research collaboration (chapter 8). This result does not hide the difficulties of communication, especially between academics and practitioners with two different professional cultures, but it reveals the importance of this element for making an improvement in relationship between collaborators during a two-way communication. Although the analysis of data gathered through interview with academics and practitioners in cases 'A', 'B' and 'C' was an illuminating account with respect to the communication difficulties, the diversity of channels of communication and the frequency of their applications showed some differences in practice which were discussed in chapter 8. Using a combination of different channels of communication, for example, telephone contacts, fax, e-mail, writing letters, attending regular meetings and taking part in the seminars and workshops related to the subject of research collaboration seem to be a way of increasing the probability of the success of collaboration. Although the findings of this study suggest a relationship between quantity and quality of

communication and the probability of successful research collaboration, such an outcome does not seem an easy-access output. This process demands a considerable amount of time to build up trust in the process of exchanging information and achieving mutual understanding. Sharing the knowledge about the subject and aim of collaboration also needs this *trust*. The quality of communication is another aspect of this argument. What is a good and effective communication? As this study concluded, good communication not only needs a two-way effort for getting feedback from the progress of collaboration, but also demands an investment of time and other resources for improving the quality of communication. There was a direct or indirect emphasis on the role of communication on developing practitioners' understanding of the nature of research collaboration with academics in order to adjust their expectations of this collaboration (chapters 5-8). Therefore, the quantity and quality of communication between academics and practitioners in management research can be one of the considerations for achieving success, and also a criterion for judging success.

What seems helpful before using this criterion for judging success is: firstly, carrying out a study through which it is possible to distinguish the diversity of existing communication patterns in research collaboration in management, and secondly, applying these patterns to the context of successful collaborations (from both academics' and practitioners' point of view) in order to find out the relationships between the type of applied pattern(s) of communication and the success of research collaboration. The findings of such a study may provide a means for increasing the possibility of the success of collaboration in the process of 'working together'. This 'means' can also be used as a criterion for choosing successful cases of collaborative projects. The constraints and limitations on collaborators' time and other resources for investing in collaboration can have an impact on the quantity and quality of communication in a case of research collaboration. Future studies on the subject need to draw their attention to the diversity and frequency of communication difficulties between management academics and practitioners during collaboration. These findings can be helpful for both developing the concepts and theories of research collaboration, and using them in comparative studies. Different contexts of inter-organisational collaboration (e.g. community-based organisations, collaborative alliances between business, government and local communities) or the collaborative approach in health, community care and education can be used for such a comparison.

Research collaboration and management research

The involvement of academics and practitioners in research collaboration confronts specific kinds of problems. These problems stem from not only the totally different culture of two groups of collaborators, but also from the distinctive nature of managers' and academics' main activities. Managers at different levels of an organisation are one of the major groups involved in research collaboration with management academics. This involvement can be at different levels, for example, the stage of decision-making for entering into collaboration, facilitating the access of researchers to the research sites and information, or direct involvement in the process of research. In each situation there seems to be a general group of problems and a specific type of difficulty for working together; general, in terms of the common problems and barriers of working together, and specific, in terms of the difference between the nature of management problems and managers' tasks for decision making in their organisations and the preference of management academics for doing basic research in university.

The cases of research collaboration in this study included the situations where at least a manager of the involved organisation was a direct collaborator in the research project. Although these cases were different in terms of the type of organisation and the field of their activities, some common points were perceptible during the interview with managers. These elements include: the focus on the main activities of their organisations rather than the research collaboration in which they were involved, the lack of information about the research activities in management departments, their preference for practical outcomes and therefore consultancy services rather than research collaboration with academics. The nature of managers' tasks in terms of day-to-day decision making and the shortage of time for reading the academic research reports are other factors which were revealed as the difficulties of collaboration between managers and management researchers. Managers who were interviewed explained that they were not familiar with management research and emphasised that the reports of academic researchers are not practically usable for them. Difficulty of academic language and including jargon along with theoretical discussions were attested by managers as the main problems which prevented them from getting benefit from these reports (chapters 5-7). This notion was also supported by supplementary interviews with academics and policy-makers in this study(chapter 4).

The different nature of academics' and practitioners' power in terms of 'theoretical', and 'practical' knowledge appeared to be another difficulty in achieving research collaboration on an equal basis with practitioners. This concept was discussed earlier in chapter 4. One additional problem reported by the academics in this respect seems to be when the results of research are critical of managers. In other words, when the findings of research notify the problems and weaknesses of their organisations, and consequently, their management styles, it is not an easy situation for researchers to send the reports to them.

Does collaboration vary with the different nature of the subject of research? There is a general consensus that collaboration is generally more common in experimental than theoretical research (Gordon, 1980; Price, 1963 cited in Katz and Martin; 1997) and the relevant literature suggested that examples of research collaboration in natural sciences are more common than in social sciences. More research needs to be done to draw attention to the possibility of effective collaboration in different subjects in social sciences. Is management research a more accessible field of collaboration between university and industry than social policy or education? Or are there any differences among the diverse disciplines which are included in the domain of management research? For example, are there more potential opportunities for research collaboration on the subjects of technology management, operations management, or accounting and marketing than subjects of industrial relations or human resources, or vice versa? What makes these differences and how can we use our findings to enhance the advantages of suitable areas for collaboration and to increase the strengths of weaker situations? Although the limited number of cases in this study does not permit a generalisation of the findings in this regard, case 'B' which is from the financial services sector seemed a more suitable potential user of management research in industry than case 'A' which was from a multinational food industry. There may be two groups of reasons for interpretation of this result. One is the characteristics of the involved organisations in terms of size, organisational structure and types of in-house research. Another one may be dependent on the objective and structure of collaboration between academics and practitioners. For example case 'B' was a small organisation which belonged to the financial services sector in Britain and the nature of its in-house research was mostly in the same area as the subject of collaboration with the university. According to the collaborator practitioner (CPB) in this case, relationship and networking among the organisations of financial services sector are a common part of their activities. The framework in which the research

collaboration between management academics and practitioners happened (a financial services forum), and the pattern of communication in the process of collaboration can be another reason for the different degree of interests of managers in cases 'A' and 'B' for involving in research through collaboration with academics (chapters 5 and 6).

Another aspect which was revealed during this study was managers' acquaintance with management training courses rather than research on management, though it was not the aim of this research to examine the collaboration process between university and industry in management training. According to both practitioners and academics it seems that there is a greater tendency towards using the training courses to improve their employees' knowledge at work than willingness of involving in research collaboration with academia (chapters 5 and 6). There might be different reasons for this tendency, such as more practical and tangible outcomes of training courses rather than research collaboration within a short-time period.

Summing up the results, the nature of managers' problems and the sensitivity of their task for decision making and immediate problem solving from one side, and the academic researchers' emphasis on the quality of research from the other side make this process more complex than other types of collaboration. Moreover, the competitiveness and rapid change in today's economic and management environment is another incentive for managers to consider the availability of new knowledge for solving their problems. More research needs to be conducted on different themes of management research in public, private and voluntary sectors to provide a base for comparative study on research collaboration alongside the different ranges of these situations. The lessons which would be learnt from these studies can be helpful for developing the theories of research collaboration. In addition, the findings of this study showed that two core areas of concern need to be studied in relation to bridging the gap between the two different aims of research among academics and managers. First, the importance of conducting research on strategic subjects[10] and involving greater numbers of companies in each research proposal. The second concern would be providing different mechanisms to build-up long-term partnerships for working together in order to facilitate the communication and information exchange between academics and practitioners. These effective

[10]Strategic research usually takes place between basic and applied research and is a bridging link between the two. See also footnote in pg. 20.

mechanisms could be helpful for building up trust and achieving mutual understanding of the subject of research collaboration.

What can we learn from the emerging theories?

This study reviewed different related literature to find a theoretical base for data analysis and its discussions, and tried to explore the common ground concepts of inter-organisational theories and literature of collaboration in science and technology Research and Development which could be helpful for developing our discussion on the subject of research collaboration between academics and practitioners.

Although the research collaboration between academics and practitioners is a specific context of collaboration, and there have not been many studies done on this subject, in general, and on this context of management research, in particular, some common threads between the findings of this study and existing concepts of collaboration do emerge. From the researcher's point of view, one of the most illuminating findings of this study was what was called *'pre-outcome'* of research collaboration, a growing component of learning during the process of working together. This outcome seems very much similar to what has been pointed out as 'invisible products' in the literature on inter-organisational collaboration (Hicklings, 1994 cited in Huxham, 1996). This concept has been described as the value of 'spin-off' improvements in relationships between individuals and organisations such as shared knowledge and mutual understanding which can be followed from collaboration (Huxham, 1996, pg. 177). The results of this study also confirm the concept of inertia[11] in the process of research collaboration. As discussed in chapters 5 to 7, the process of working together is a complex phenomenon which needs special attention, otherwise it will be confronted with the danger of inertia. More investigation needs to be done for finding out the characteristics of these situations to provide special mechanisms to overcome these bottlenecks to the progress of the collaboration process. According to the academics' and practitioners' emphasis through the interviews in this study, building up a good relationship with each other before entering into collaboration and during the process of research is not only an essential factor for the success of collaboration, but also creates future opportunities of working together. The concept of

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[11]See also pg. 225.

'sustainability' which refers to the importance of keeping collaboration alive over the longer term also seems applicable for developing the notion of research collaboration. Cropper (1996) argues the different contributions of longevity and the behavioural quality of 'sustainability' of collaborative working. He compares these factors in terms of past and future and points out that "whereas longevity indicates past success, 'sustainability' is inherently future-oriented" (Ibid. pg. 83). Although Cropper's discussion is based on the collaborative ventures which had been developed to enhance public services provision in community health and well-being, which is a very different context of research collaboration between academics and practitioners, it may provide a potential basis for future research on the subject. This is a very preliminary thought on the possibility of developing the concept of 'sustainability' for the context of research collaboration, perhaps in the stage of dissemination and utilising the findings from a research collaboration.

The other concepts related to the nature and purpose of collaboration such as collaborative betterment and empowerment, community involvement, and convenor modes[12], seem to be more applicable in the context of community-based inter-organisational collaborations rather than research collaboration between academics and practitioners. Although this study did not examine the role of the facilitator in the process of collaboration, it may be useful to include this concept in our discussion on lessons from emerging theories. A facilitator helps a group to work collaboratively by focusing on the process of how the participants work together (Schuman, 1996, pg. 126). The differences between the structure and nature of inter-organisational collaboration and research collaboration between academics and practitioners raise a fundamental question: Is there any necessity for a facilitator in the process of research collaboration? How can a facilitator guide the process of research collaboration? What expertise does s/he need? More research needs to be done to investigate the applicability of using the facilitator services for facilitating the process of research collaboration. The role and responsibility of facilitator and his or her impact on the success of research collaboration can be examined through comparative studies between research groups who employ the facilitator and who

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[12]These concepts have been listed and briefly defined by Huxham (1996, pp. 176-177). According to her definitions: "*collaborative betterment and empowerment* directs attention to the practical possibility of collaborations as a way of empowering the disadvantaged in society. *Community involvement* directs attention to the practical need to involve community members in community-based collaborations. *Convenor modes* highlights the importance of demonstrating that a convenor must be seen to have a legitimacy or credibility in the role."

do not have the facilitator or convenor. Although it was not included in the aims of this research to examine the role of facilitator, the reference to the steering group in case 'B' can be counted as employing the facilitator in the process of collaboration which proved to be a successful practice within the framework of this collaboration (chapter 6).

The findings of this research suggest that research collaboration can be mapped as a system which starts with a basic input from academics' and practitioners' side, it continues through a process of relationship and comes to the fruition with an output of research and an outcome of research collaboration. The success or failure of this experience is based on the whole performance of this setting. Both academics and practitioners in this study pointed out this complexity directly or indirectly. There seems some similarity between this approach and what the existing literature suggests in this respect. Wood and Gray (1991) suggest the three broad topics of pre-condition, process, and the outcome of collaboration as the essential issues to understanding collaborative alliances.

Another concept which seems to be helpful for analysing the process of research collaboration is the 'exchange model'. The exchange model conceives inter-organisational relationships as a process of give-and-take.

> "Organisations are basically goal-oriented and will collaborate voluntarily only when there is some mutual benefit to be derived from doing so: no goods or services are ever transferred without reciprocity of some kind being involved." (Lishman, 1989, pg. 17).

This concept may be introduced as a tool for understanding the motivation for collaboration in terms of rational self-interest. This argument is based on the assumption that organisations will only work together if they see it as being in their interest to do so. The theme of reciprocity which came out through this study as a requirement for the success of research collaboration between academics and practitioners is also similar to the 'exchange model'. The analysis of data in this study confirmed that the members involved in collaboration have to be convinced that they will get a benefit out of it at the end, though with a very different conclusion. This notion was supported by data from both the supplementary interviews and the case studies (chapters 4-8).

Another group of theories which can be used as a tool for exploring and understanding the complex phenomenon of research collaboration between academics and practitioners is the theories of social interaction. Loxley (1997)

argues the interactional nature of collaboration in both its purpose and its process. She uses three groups of theories in this respect: systems theory, social exchange theory, and co-operation theory. Although Loxely's study has been focused on collaboration in health and welfare, and three main social elements of structure, power, and culture, it has some common threads to share with the findings of this research. The notions of structure, power and culture can all be relevant to the understanding of the perception of academics and practitioners of research collaboration in different situations. Future studies have to examine the attributes of these elements within the context of research collaboration. For example, the collaboration in the cases which were studied was more *inter-individual* collaboration than inter-organisational and because of the professional characteristics of involved parties, the power relationship seemed a kind of knowledge-based one, the power of 'theoretical knowledge' on the academics' side and the power of 'practical knowledge' on the practitioners' side of collaboration (chapter 4). The importance of the structure of collaboration for managing an effective relationship, or the emphasis of co-operation theory on the necessity of an organised structure for future contacts can be applicable to the findings of this study. The factor of culture holds a distinctive place in research collaboration, which appears to be more complex than in other types of collaboration. This study showed that the two different cultures of two diverse communities of practitioners and academics is a barrier to bridging their interests for working together. This barrier becomes more inhibiting when it comes to the research and especially management research (chapters 4-8).

Summary of findings and concluding note

A continuum of the diversity of research collaboration between academics and practitioners was identified in terms of the most frequent criteria used by the academics for explaining the notion of collaboration. The multi-faceted nature of barriers and limitations of research collaboration between management academics and practitioners was also discussed in chapter 4 which supported the distinctive nature of research collaboration between academics and practitioners. This discussion was developed through case studies (chapters 5-7), and led to a classification of the influencing factors on research collaboration into three groups in terms of the main barriers in different stages of research collaboration between academics and practitioners (chapter 9). A framework was suggested for comparison between case studies in terms of the experience of research

collaboration which identified a three-phase process of involvement in this collaboration. The experience of two-way learning as a pre-outcome (my term) to collaboration was discussed and a concept of shifting from ambiguity towards change through the process of learning was suggested (chapter 8). The cross-case analysis came also to an understanding about the existence of a prime perception of collaboration among collaborators which is input into the process of 'working together'.

The main themes attached to the definition of collaboration were drawn from three different sources : dictionary, related literature, and the study, by which a primary definition of research collaboration was suggested, and also the main themes and attributes by which the success of research collaboration explained in this study were outlined (chapter 9).

Methodological reflection was discussed in terms of lessons which can be drawn from both the conduct of this study for future research, and also by consideration of the possible 'Britishness' of this study.

This study came to some conclusions, not only in the context of research collaboration between management academics and non-academic users of their research, but also in the wider context of the ESRC research policy for social sciences research and its recent emphasis on involving non-academic users in different phases of planning, designing, conducting and evaluation of research. This leads to some policy implications of this research which are suggested in the next part.

Policy implications

A series of issues arise from the relationship between the research policy of the ESRC and the practice of research collaboration. The findings point to a number of research policy related conclusions. The low quality of some of the ESRC-funded research projects, the sensitivity of involving non-academic users in the process of priority setting, the low quality of university research in the social sciences in general, and in management research in particular, and the danger of moving towards the extreme of meeting users' needs in cost of compromising the quality of research and its academic rigour, are examples which were acknowledged directly or indirectly by academics in this study.

The findings of this study supported the suggestions of the Commission on Management Research (ESRC, 1994b) which emphasised two main sets of problems with management research in universities - the importance of both 'quality' of management research and its 'relevance' (chapter 4). The academics' criticism of the ESRC in terms of the inadequacy of provisions for involving non-academic users in the process of priority-setting, and the failure to fund the most valuable research proposals are examples of the points which were hinted at by the academics in this study. These statements included not only the low quality of management research in British universities, but also emphasised the low quality of some of the ESRC-funded research projects. As discussed in chapter 4, these criticisms were raised by the very experienced academics who were interviewed in this study. This group not only had several years of research experience, but also had participated in different committees of the ESRC and received awards through different schemes of the ESRC.

The low percentage of collaborative cases among the research projects awarded by the ESRC in management and business studies was a primary finding of this study. The study showed that management and business studies research projects within the ESRC's grant scheme are mostly of a conventional type of research which did not involve users in the different stages of research. These are projects in which user organisations are used just for access and gaining data through sending questionnaires, conducting interviews or making observations. The limited number of case examples of involving non-academic users in conducting management research is evidence of a situation in which these cases of collaboration do not happen much in practice, a finding supported by the supplementary interviews with other management academics.

The findings of this study indicate that there are still many considerations which should be taken into account before ensuring that user involvement will happen automatically and effortlessly in practice. It does not seem sufficient to include solely a requirement of indicating user involvement within the ESRC's grant applications and then to make sure that both society and the academic community will get benefit from this collaboration.

The following recommendations can be offered for the purpose of policy implementation:

- A national survey of collaborative projects can provide an invaluable data base for future research on the subject. This survey can be conducted jointly by the British Academy of Management, Institute of Management and the ESRC. This combination of organisations can cover a broad range of managers and academics around the country.

- Since there is not a distinctive definition of research collaboration between academics and practitioners and the idea of involving non-academic users in social science research (in our case, management and business studies), it would be helpful if the ESRC with the assistance of academic researchers in different fields of social science would provide a definition of its aims of for non-academics' involvement in social research. This needs to take into account that the nature of this involvement and its limitations may be different in the stages of designing, planning, selection of priorities of research and evaluation by the ESRC's various committees, as well as in the conduct of the research itself.

- The findings of this study showed a major barrier to creating opportunities for research collaboration between management academics and practitioners. This barrier is the lack of awareness of non-academic users of what the academic management research in universities can offer them or what the management discipline in universities involves. Put another way, when practitioners are not aware of what academics' research can provide for them, then they do not know what to expect of research collaboration. On the other hand, the academics were also interested in finding out about the users' needs for their research. This notion was frequently addressed by both practitioners and academics. This is one of those barriers which may be reduced by using some mechanism (e.g. workshops, forums, conferences, or publications) by the ESRC or universities in order to provide opportunities for increasing this mutual awareness of the potential research capabilities of universities, on the one hand, and the user-organisations' requirements and their potential resources for collaborative research on the other hand.

- The literature review showed a series of differences between research collaboration in science, engineering, and technology projects and research collaboration in the social sciences in general and management research in particular. The differences are based mainly on the nature of the subject of

study, the motivations of collaborators, (especially practitioners) for entering into collaboration and the nature of expected outputs of research. Therefore, these differences do need to be taken into account if policy makers aim to encourage users' engagement in management research. The intangibility of the output of social science research for non-academic users, and consequently the difficulty of its measurement in terms of cost-benefit analysis, are general barriers for getting non-academic users' interest in thinking of research as a way for solving their problems. So, it seems that the existing predictions of an increasing trend in the number of cases of inter-organisational research collaborations between different firms and between university and industry in the areas of science and technology is not necessarily generalisable to the field of management research collaboration. This diversity also suggests the limitations of applicability of findings which have been generated by studies on the advantages and impediments of collaboration in the cases of science and technology. So, it may be worthwhile for the ESRC to contribute to conducting a series of studies on what are common and distinctive factors in the research collaboration in the field of science and technology and management research.

- An immediate action that should be taken by the ESRC would be to require academics to include a section in their final research report about their experience of engaging non-academic users in the process of research, different mechanisms which they applied, and how these provisions worked in achieving the aims of involving non-academic users included in their research proposal to the ESRC.

Let me conclude by emphasising that the findings of this study showed an overestimation by policy-makers in the ESRC of academics' ability to respond to the new policy of involving non-academic users in the process of social science research. Although it is clearly true that a transformation in the focus of research policy of the ESRC is occurring, this is not leading automatically to a quick shift by academics toward a new model of academic research which removes barriers and limitations on both sides of collaboration.

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Appendix 1

The main topics and questions of the interviews

A. Case studies:

The following topics and questions were used as a general guide of interview with academics and practitioners in this study (with regard to the diversity of case studies, slight modifications were applied in each case to proceed the interview). These questions were asked from both academics and practitioners who were involved in case studies of collaboration, except where otherwise described.

Definition

- How do you define research collaboration? (mainly academics).

Origin of collaboration

- How did you come together?
- What was the direction of request for working together? (from university or collaborator organisation?).
- In what stage did you become involved in the process of research? (only practitioners).

Motivations

- Why did you enter into this collaboration? / What were your motivations?
- Have you had any previous experience of working collaboratively with practitioners/academics on a research project? If yes, how was it? If no; why?

Process of collaboration

Communication

- How did you develop your relationship with your partner in this collaboration?
- What are the different ways of communication in this collaboration?
- How often do you have meeting with your collaborator in this project?
- How do you get feedback during the progress of research project? (only practitioners).

Barriers

- What problems did you confront with in this collaboration?
- Did you overcome these problems? If yes, how? If no, why?

Expectations

- What are your expectations from entering into this collaboration?
- What benefits do you get from this collaboration?
- Can you compare your expectations at the beginning of your involvement in this process and now? (only practitioners).

Success of research collaboration

- How do you describe the success of your collaboration?

B. Supplementary interviews:

The following topics and questions were used as a guideline to the interview with academics during other stages of data collection in this study.

Definition

- How do you define research collaboration between management academics and practitioners?
- What is your experience of collaboration with practitioners? (an indirect question from academics to find out the diversity of definitions of collaboration between management academics and practitioners).

Successful research collaboration

- What are the characteristics of successful research collaboration between academics and practitioners from your point of view?

Barriers to research collaboration

- What are the barriers of research collaboration between management academics and practitioners?
- How can these problems be overcome?

Complementary questions

- How can we get the interest of practitioners for collaboration with academics in management research?
- What do you think about managers' preference for using consultancy in management issues comparing to academic research?
- How do you compare the research collaboration between academics and practitioners on fields of science and technology and social sciences in general, and management, in particular?